THE

Chicago Medical Journal

AND

EXAMINER.

VOL. XXXIV.—MAY, 1877.—No. 4.

Original Communications.

A SIMPLE MODE OF CLEANSING THE NASAL AND PHARYNGO-NASAL PASSAGES.

BY THOMAS F. RUMBOLD, M. D., St. Louis, Mo.

The greater number of those patients who are afflicted with chronic catarrhal inflammation of the mucous membrane of the nasal passages, will require, in the early part of their treatment, frequent cleansings of these cavities. As the period between the applications which the physician gives, is frequently so long that the membranes become loaded with accumulated secretion, the patients must attend, in the interim, to the cleansing and to the application of such remedies that can be safely intrusted to their care.

Whenever a collection of muco-purulent secretion is allowed to remain in the nasal or pharyngo-nasal passages, for a length of time, varying from a few hours to a day or more, it becomes fœtid, and acquires an acrid property; this quality is the result of a kind of fermentation, which the heat of the parts causes or favors. If such vitiated secretions are allowed to remain on the mucous membranes, their acridness will aggravate the inflammation. These facts indicate both the

necessity of maintaining the catarrhal surfaces in a clean and disinfected condition, and of the patients being instructed as to the most effective mode in which this cleansing may be done.

While it is essential to speedy recovery, to have the nasal passages maintained in a clean condition, it is also equally essential that the means employed in the removal of the secretions should not cause an irritation that will last beyond a few seconds. A sensation of relief should be experienced immediately succeeding each application.

The simplest mode of performing the ablution of the passages, in question, is by means of inhaling water and air from the palm of the hand into the nostrils. This manner of cleansing is sufficiently effective, for all patients whose secretions do not become locked in the nasal cavities by reason of their hardness or size.

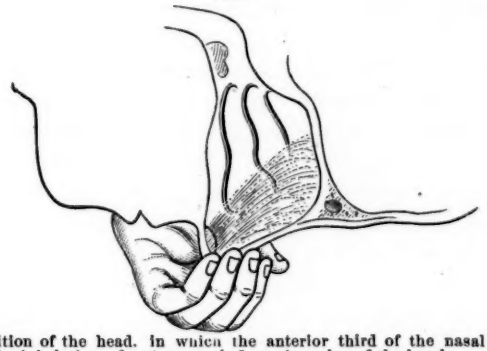
It does seem as though it would require but little instructions to enable the patient to successfully perform this inhalation, aside from the directions given with regard to the ingredients, the strength and the temperature of the solution used; but it will be seen from the description of the method recommended, that the patient might not adopt it, without being so directed.

During inspiration through the nostrils, the course of the greatest volume of the stream of air that enters these cavities, is not parallel with the bridge of the nose, nor does it pass along the floor of the nasal passages, but nearly between these two boundaries, which course is generally at an angle of about 45° with the plane of the forehead. If we keep in mind, that the tendency of the stream of inhaled liquid, is to take the same direction that the air does, and that the water, because it is heavier than the air, will deviate from this course by gravitation, we have only to place the head in certain positions, to be enabled to wash or bathe the entire surface of these triangular shaped cavities, except the inferior portions of the turbinated processes.

To reach the anterior third of the nasal cavities, the head of the patient should be inclined forward to such an extent, that the plane of the forehead will be nearly in a horizontal

position (Fig. 1); then the stream inhaled from the hand,

FIG. I.



First position of the head, in which the anterior third of the nasal passages is washed by the inhalation of water and air from the palm of the hand.

will go upward and forward at an angle of 45°. In this position of the head, gravitation causes a part of the inhaled solution to fall on the most anterior portion of the passages. After the inhalation of one or two handsful, the patient should blow the nose, to free it of all liquid and loosened secretions. Continued and hard blowing of the nose should, however, be avoided, as this is liable to force mucus up the Eustachian tubes, as well as to aggravate the congestion of the inflamed mucous membrane.

To wash the middle third of the nasal passages, the head should be inclined forward until the forehead is placed at an angle of 45° with the horizon (Fig. 2), then the greater part

FIG. II.

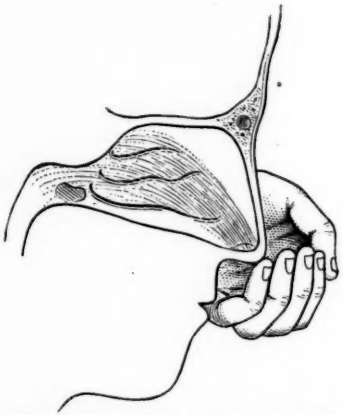
Second position of the head, in which the middle third of the nasal passages is washed by the inhalation of water and air.

of the stream of inhaled air and liquid will enter the cavities in a vertical direction, striking the superior portion of the cavity, but gravitation will divert a part of the fluid forward, and a part of it backward, of the vertical line.

Again the loosened secretions should be blown out.

In the third position of the head, the forehead should be placed in a vertical position (Fig. 3); then the stream of air

FIG. III.



Third position of the head, in which the posterior third of the nasal passages is washed; and also the upper surface of the soft palate and the posterior wall of the pharyngo-nasal cavity.

and fluid will enter the cavities at an angle of 45° with the horizon, going upward and backward. Gravitation, in this case, instead of causing it to fall forward, as it did in the first position, will cause a part of the solution to pass along the floor of the passages, thus washing the remaining third of the surfaces. Again all liquids and loosened secretion should be blown out. In the first and second positions, the inhaled liquid will come out of the nostrils in front; but in the last position, all of it will come out from the mouth.

While the head is in the third position (Fig. 3), it is possible for the patient to inhale the solution with sufficient force, to cause a part of it to strike the posterior wall of the pharyngo-nasal cavity; if so, the surface of this cavity, with that of the pharynx and upper surface of the soft palate, will be washed

also. In this way, the patient can remove the tenacious mucus adhering to these surfaces, which removal cannot be accomplished by any other effort he can make, for the reason that the mass of accumulated secretion is located above the place reached by the movements of the tongue, or soft palate, or the force of the breath in hacking or rasping the throat. Patients, in their endeavor to remove this adhering mucus, usually have severe "coughing spells" in the morning, as they turn their efforts to clear the throat, but these efforts do not rid the mucous surface of the offending matter; this removal is accomplished only when they continue to cough long enough to induce gagging efforts, which efforts are accompanied by a qualmish condition of the stomach, and a copious flow of free mucus; it is this fresh flow of liquid mucus that accomplishes the removal of the adhering mass, by washing it away from its place of lodgment. The attempt to remove this tenacious secretion by the old gargling method, must always fail, because this method cannot throw the liquid, employed, to the location desired; it can only wash the tonsils, the anterior surface of the soft palate, the base of the tongue, and a small unimportant portion of the fauces.

Those patients who cannot clear their throat with the first course of inhalation from the hand, and whose cough is continued so long, by the presence of the lodged secretion, that it produces a gagging sensation, should lie down in bed for a few minutes, as the recumbent position will usually relieve this disagreeable symptom. After the sickness of the stomach has passed off, and the solution inhaled has loosened the adhering mass, they will be enabled to clear the throat by another course of inhalation.

During the last eleven years, I have recommended this method to my patients, they have found that it had a very beneficial effect, always freeing the nasal and pharyngo-nasal passages of the accumulated secretions.

The number of times that these inhaling operations should be repeated, is a matter of some importance. We must keep in mind that the nasal passages are not made to receive any kind of liquid, and that the lining membranes absorb, to their injury, more or less of every fluid that comes in contact with

them. The reason why the medicated solution is a benefit, is, because it acts as a solvent to vitiated secretions that are far more deleterious to the mucous membranes, than the effect of the absorption of the liquid itself: it follows, therefore, that just so soon as the decomposed secretions are removed, the solution, if continued, will be a means of doing harm. In other words, the washing out of these cavities is but a choice between two evils, the use of the solution being the lesser. It is evident, then, that the sooner the lesser evil is discontinued, after the greater evil has been removed, the better it will be for the mucous membranes.

After the surfaces have been made clean, the washing should be stopped, even though it produces a pleasing sensation, because the absorption of the water causes the membranes to become swollen, in which condition they are more susceptible to the deleterious influences of cold.

If at any time the inhaled liquid produces a painful sensation, which lasts beyond one or two seconds, then it should be discontinued, even if the passages are not entirely cleansed. With such cases, a few partial washings, aided by the local applications, made by the physician, will decrease the heat of the parts, that is the cause of the hardening of the secretions; then the cleansing can be completed without producing the least disagreeable effect.

Patients in whose nostrils or throat dry masses collect, should inhale three handsful of the solution immediately on getting out of bed in the morning, placing the head in the three positions named; this will soften the mass a little; by the time they have completed their toilet, they will probably be able to cleanse the head by a second course, *i. e.*, with three handsful more. During the early treatment of a bad case, three and four courses may be required in the forenoon.

The solution to be inhaled from the hand is composed of common table salt and water, that is a little warmer than blood heat, about one teaspoonful of the former to a pint of the latter. Patients will soon learn, from experience, whether or not this is the proper strength or temperature, when they are informed that water, either without salt, or with too much in it, is productive of more or less pain, and that the right

quantity (which varies with different individuals) produces a pleasant bland sensation; also, that cold water causes a disagreeable as well as an injurious effect.

For those cases whose nasal secretions are offensive, five grains of salicylic acid should be added to the pint of warm salt water.

1225 WASHINGTON AVENUE.

TRAUMATIC TETANUS.

BY EZRA READ, M. D., of Terre Haute, Ind.

[Read before the Indiana State Medical Society.]

Throughout my professional life, since by study, reflection and experience I had carefully settled the question in my own mind, I have declared in public and in private circles, that *traumatic tetanus* was incurable by any of the remedies now known.

I made this declaration before this learned association at its last meeting; but as Solon said that he learned something in his old age, every day, and continually advanced in the paths of knowledge, I trust it may not be deemed affectation to assert that I have, in the last four months, learned at least one fact, that traumatic tetanus is curable. Prior to this time, in nearly half a hundred cases within my own observation, every one terminated in death, and I came to distrust reports and written opinions to the contrary.

As this disease has existed from the beginning of mankind upon earth, and will to the end, it may not be unbecoming or uninstructive to render to those I have the honor of addressing, a brief collection of the opinions upon the subject of some of the eminent physicians who have preceded us; especially as I am incapable of advancing those of my own upon a matter so unsettled by the profession.

No writer upon this disease, known to me, is earlier than Hippocrates, and, for all practical purposes, that is far enough back. In his aphorism relating to this, he says: "Spasm supervening upon a wound is fatal," and in another: "Such

persons as are seized with tetanus die within few days, or, if they pass these, they recover." His method of cure was venesection, strong Cretan wine, bathing the legs and feet in hot water, and the arms, and hands, the spinal column in its entire length from neck to sacrum to be wrapped in skin smeared with wax. Intervals were used for the application of hot fomentations, by means of leather bottles filled with hot water, and covering up in the bed.

He recommended the use of the bryony, in fragrant wine, and carrot, to be given to the patient early in the morning, fasting. Prior to and succeeding this, warm barley gruel was to be used and diluted wine.

The bryony is said to be a thorough and hydragogue cathartic, and strongly diuretic.

He concludes by saying, "If the disease yield to these means, so much the better, but, if otherwise, you must prognosticate accordingly." I do not know that it may be regarded an unfavorable reflection upon the profession to say that this method of cure has not been much improved since the above was written.

Celsus coincided with Hippocrates in relation to the danger of this disease, and that it usually proved fatal before the fourth day. Living beyond that time was favorable to recovery. He differs with Asclepiades, who advocated bleeding, but recommended scarification and cupping upon the neck, and burning it with the actual cautery, or corroding it with mustard.

He gave castor, and pepper and clysters, and applied hot fomentations of water to the neck, and also anointed these parts with liquid cerate, and then applied ox bladders, or bottles, filled with hot oil, or a hot meal poultice, or round pepper bruised with figs, also a fomentation with moist salt.

He recommended the neck, shoulders and spine to be thoroughly rubbed with old oil, the hair to be closely cut, and the head moistened with hot orris oil, or that of cypress, and to be covered with a cap.

Friction, though serviceable to all the vertebrae of the body, is particularly so to those of the neck, and should be resorted to *die nocteque.*

Food, requiring mastication, should be for a long time avoided; gruel, soft and fresh boiled eggs are to be used, and at later convalescence, wine. All cold should especially be avoided, and warmth carefully preserved.

These eminent physicians will thus be observed to have had corresponding views upon this disease, and did not widely differ from all since.

Paulus Aegineta recites, among other symptoms, a moaning respiration, pulse small, red face, eyes protruded, and sometimes a sardonic laugh, with scanty urine, and occasionally singultus. He regards the supervention of fever to be favorable, as did Hippocrates, Galen and Avicenna. The treatment recommended is very similar to that of the writers already quoted. Hot applications to the neck, bleeding, hot oil bath, cupping, musk, assafœtida and gum ammoniac.

He agrees with Hippocrates that cold water affusions are hazardous remedies. This was recommended by Dr. Currie, of Liverpool, but abandoned, and was not adopted by the profession.

Aetius, Aribasius and their cotemporaries, recommended bleeding, hot fomentations, and the oil bath, made by adding one-fifth oil to water. Aretæus describes tetanus to be painful, sometimes proving speedily fatal and *always difficult to cure.* His treatment was soothing and relaxant, with hot applications, a warm, soft bed, bleeding, cupping and suppurative applications to the wound. Cadius Aurelianus, Haratianus and others of this age, adopted this method.

The Arabian physicians, Avicenna, Albucasis and Rhazes adopted the Greek method, and, in fact, the whole medical world since. The disease has been obscure, with like treatment.

I come now to the modern views of surgeons upon this disease, its derivation being from the Greek word *teiro*, to stretch, implying that condition of the muscles of the spine, their terminal tendons, either drawn forward, emprosthotonos, or backwards, opisthotonos. It is an involuntary spasmodic action of the muscles of the spinal column, from a punctum saliens, inducing such condition through nervous action.

Tetanus is usually of gradual invasion, but a case is recorded by Professor Robison, of Edinburgh, of a negro, who had wounded his thumb, from which he died of tetanus in fifteen minutes, but this seems so unreasonable that it is unworthy of credit, noted as it is by a gentleman so respected for his professional attainments.

Stiffness about the neck, which increases to the extent of rendering the motion of the head difficult and painful; an uneasiness felt at the root of the tongue, rendering mastication of food, or swallowing of liquids painful or impossible, causing convulsive action, and the disinclination to make the attempt, are prominent and alarming symptoms. There is severe pain at the bottom of the sternum, which darts from this point backwards in the direction of the spine. Violent spasms seize all the muscles of the neck, and the head is drawn forwards or backwards, in obedience to the greater or lesser action of the flexor or extensor muscles. The inferior maxilla is drawn more rigidly to the superior, and the jaws are fixed, are locked. It is the characteristic and unmistakable symptom of the disease, its pathognomonic culmination. This spasmodic condition returns at short intervals, induced by the least possible excitement, as attempting to swallow, or being touched, or moved, or quickly spoken to, and always attended with most excruciating pain. The head is incapable of lateral turning, the arms are rigid and fixed, the legs are rigid. The abdominal muscles are so rigidly contracted that the belly feels hard and tense; the tongue loses its volition, and is spasmodically thrust forwards between the teeth, to be torn and lacerated by violent spasms, unless properly protected. In its severe form, the muscles of the face are contracted, the forehead is drawn into furrows, the eyes distorted, fixed and motionless, the nose is drawn up, the cheeks are retracted towards the ears, and the whole expression is painfully changed, and not unfrequently there is a wild, sardonic grin upon the face.

There is little or no fever; the surface is usually bathed with sweat, especially about the face and forehead; the pulse is hurried and small, generally above one hundred; the secretions are but little changed. Sleep almost entirely forsakes the patient, from convulsive interruptions, and the whole con-

dition is that productive of pity and pain to physician and attendants.

The modern writers who have had the largest experience in this disease, concur in the opinion of its imminent danger, and the general methods to be observed in its treatment. Sir James McGregor, the Chief British Army Surgeon in Spain and Portugal, and Baron Larrey, both had large experience in hot climates, and from gunshot wounds. The former, in his report, says it occurred in every description and stage of wounds from the slightest to the most formidable; it followed the healthy and the sloughing, the incised and lacerated, the the most simple and the most complicated, and occurred at uncertain periods, but after twenty-two days, but little apprehension was to be had. It attacks all ages and conditions, but infants and the middle-aged are most liable. The feeble and weak are said to be less liable, and the female than the male.

Although a disease of all climates and all seasons, it is most common in marshy districts, bordering upon the sea, and in the hot months of hot climates, where it is an ordinary consequence of all wounds. Cold and moisture are recognized agents in inducing the disease, after wounds, and especially when applied to the surface in a heated condition. All atmospheric vicissitudes are aiding conditions.

In our present state of knowledge, we cannot indulge the hope of much success in the treatment of this disease. All remedies have been tried and with limited success.

The knife itself reveals no lesion after death. A little redness of the mucous surface of the œsophagus and the cardiac region of the stomach alone exhibits increased vascularity, and slight vascular inflammation, with contraction of the pharynx and œsophagus. In fact, no injury of any part or organ develops sufficient cause of death.

It must, therefore, be sought for in the nervous system, and the result of the shock to this tissue, which checks the machinery of life without a morbid trace to direct the mind to the invaded part.

Larrey, McGregor, and others scarcely less eminent, have resorted to amputation repeatedly, with the hope of relief, but in not one single instance was it of any use whatever. The

division of the nerve has, in like manner, been made, with like results. As the wound is generally healed before the spasm sets in, or, if open, the suppuration diminishes, irritating substances have been applied to restore the inflamed condition of the wound, and it would seem a most reasonable means.

Doctors Rush and Hosack advocated the use of stimulants, and especially of wine. Barks and wine have been used; calomel, and all antispasmodic remedies,—blisters, cupping, tobacco clysters, the cold and hot baths, and, in fact, every remedy which could suggest itself to anxious and inquiring minds.

In Jamaica, and other West India Islands, the cold bath and opium have been favorably mentioned. Dr. Drummond, of the former island, says, "I am of opinion that opium and cold baths will answer every intention in tetanus and such like diseases, for while the opium diminishes the irritability and gives a truce from the violent symptoms, the cold bath produces that wonderful tonic effect so observable in this and some other cases." "Perhaps bark and wine joined with these would render the cure more certain." The method of using the cold bath was to plunge the patient in cold water or the sea, wipe dry, put to bed, and administer twenty or thirty drops of laudanum.

Opposed to this, by eminent British surgeons serving in Spain, is the opinion that they had found the "cold bath worse than useless."

Baron Larrey killed one patient with the cold bath, and it stands condemned by Hippocrates, Cullen, Callison, and the majority of intelligent surgeons in every age. Its utility, I think, is doubtful in all convulsive diseases, and I am not sure but that my friend, Dr. Swafford, and myself, in our army practice, hastened the death of a poor soldier in Alabama, by means of a cold shower bath. In addition to the internal use of mercury, even to salivation, the mercurial friction has been by some recommended, but has found *its* objectors in the cases of Drs. Guthrie and Emery, army surgeons, who used it in unlimited quantities, without any success whatever.

In speaking of Dr. Rush's views of stimulants, I should have mentioned his opinion to have been, that it is a disease

essentially connected with debility, and he recommends most powerful stimulants of brandy, wine, ether, preparations of ammonia, bark and cordials, with dilatation of the wound, and a dressing of oil of turpentine to it. The use of Prussic acid has been repeated with favorable results. Blistering along the entire spinal column has been extensively and successfully used, and is, perhaps, the best known external application. It commends itself, I think, to the approbation of intelligent physicians everywhere, and has at least some reason and philosophy in its *methodus medendi.* Having presented the prominently received opinions of the medical world, I now present the following case, but just recovered.

Michael N., a native of Terre Haute, of Irish parentage, well grown and healthy, and a machinist by trade, was at work in one of the shops in St. Louis, and while holding a piece of railroad iron in the act of being cut, a fragment was thrown off, passing through the muscles, filling the space between the thumb and forefinger. The laceration was slight, with but little pain. He consulted a physician, who applied the tr. of arnica, and in six days it was completely healed. He returned to his home in this city, and, being upon the street on the evening of the 25th of August, (he was wounded the 16th of August) and creating more noise than the law allows at a political gathering, he was arrested and confined in the station-house four days. He had two chills, while confined, and the room being damp and chilly, he was released, and on the 31st of August, fifteen days from date of injury, he was seized with tetanic spasms and stiffened jaws.

I was immediately sent for, and with a stiffened and convulsed patient before me, and a small army lying quietly under the earth from similar condition, I was not much encouraged as to future results, and so expressed myself to the family.

His tongue was already wounded by protrusion, although the convulsions had not reached to the extent which followed.

As presented, he was lying upon his back with a ghastly expression of countenance, his jaws firmly fixed, and all the cervical muscles rigid and hard. His hands were folded across the breast, and immovable. His pulse was 112 and small; surface cool and moist; had no pain; bowels and urinary

organs in healthy condition; had not slept previous night, and seemed and expressed himself to be comfortable in the absence of the spasms, which came on at irregular intervals, from 20 to 40 minutes. His head was constantly drawn backwards, but increased during spasmodic excitement.

He was particularly sensitive to noise and the touch, which invariably excited to spasmodic action. All of the above recited symptoms gradually increased, with the exception of frequency of pulse, which remained the same, varying from 100 to 110—for three days, when the disease seemed to have reached to its fullness, and from that time to resolution, there was scarcely an appreciable change. Reaching its acme, he had pain between the shoulders, and in the neck, loins, and scrobiculus cordis, and extending to the spine in the course of the diaphragm, with a tense and hard belly.

On the fourth day he had the sardonic grin, with retracted cheeks, and forehead drawn into furrows, eyes distorted and fixed, nose drawn up, and a most painful expression of countenance.

In this condition he remained without any fear whatever for thirty days, when the convulsions gradually ceased with a general relaxation of all the muscles which had so long been imprisoned in their rigid cells. During all of this time he and his family declared that he had no sleep; but this, of course, should be received *cum grano salis.*

I can readily understand that the sleep was limited from convulsive interruption, but not that there was a total absence of it. This, like the daily condition, forbids the recital of daily symptoms, and I shall not weary your patience with further details.

The treatment consisted in the administration of 3 grains of calomel daily in 1 grain doses, for five days, with 20 grs. of quinine in 5 gr. doses. This was directed more against the malarial influence, than with the hope of influencing the disease except indirectly by removing this all-pervading poison, which to a greater or lesser extent impresses all other diseases and conditions.

I gave hydrate of chloral for three days, which lessened the frequency of the spasms, but apprehending its cumulative

tendency, I dispensed with it and substituted whisky, and of this he drank three gallons a week, or a little more than three pints daily. He called for it constantly, and was assured in his own mind that this was the very remedy to cure him. I felt myself a greater reliance upon it than any other remedy suggested to my mind, and I am now fully persuaded that the whisky brought about the cure. He was really drunk from day to day, but, like those without disease in like condition, he was happy, and immediately following a convulsive struggle would resume his cheerfulness and strong hope of recovery. During all of his illness I gave him animal broths, beef tea, and corn-meal gruel.

He is now walking around apparently well, but very stiff in the loins and hips.

He has the movement of an old man with rheumatism in the back. He was in my office four days ago, having walked half a mile, and is well, except the stiffness just mentioned.

This is the first case of tetanus that I have ever seen cured, but in the future, and as long as our good sister State of Kentucky continues to manufacture its copper distilled whisky, I shall not pronounce tetanus a mortal and incurable disease.

THE PRESENT STATUS OF MEDICAL SCIENCE CONCERNING THE CAUSES AND PREVENTION OF EPIDEMIC DISEASES.

By N. S. DAVIS, M. D.

[Read to the Evanston Philosophical Association, Feb. 12th, 1877.

In a former paper read to this society, I endeavored to explain the true nature and objects of medical science. It was then claimed that medical science was not a compact aggregation or embodiment of philosophical theories, or dogmas, concerning the nature of disease, and the modus operandi of medicines; but rather an appropriation of the facts and principles of all the physical and natural sciences, so far as they can be made to reveal the causes, nature and tendencies of diseases, and the agents capable of acting either as preventives

or curatives. The physician studies the human system in the same manner, and by means of the same instruments and appliances, that the thorough naturalist studies any other species of animal. He analyzes, or dissects, by means of the scalpel and microscope, all the structures of the body, to ascertain the existence and extent of each structure and organ, and the relations of each part to all the rest. By simple observation and experiment, he endeavors to ascertain the exact function or office performed by each part, and the influence it has over the action of other parts. Having, in this manner, become familiar with the anatomy and physiology of the human system, as a living organization, he endeavors, by the same methods of inquiry, to ascertain in what way the various structures and functions may be altered from their natural conditions, so as to constitute disease. For the latter, instead of being some mysterious entity, or substance, or potency that enters the human system as an enemy, and is to be met, driven out, or neutralized by some specific remedy, administered in accordance with some supposed universal law of cure, is simply a deviation from the natural or healthy standard of action in some structure or organ. Such deviation may consist of increased, diminished or perverted actions, according to the nature of the exciting cause or causes.

And the application of remedies must be governed by the same principles of reason, or common sense, as govern us in all other things. If the morbid action is one of increase or excitement, such remedies should be chosen as would repress or diminish it; if of diminution, such as would tend to sustain or increase it; or if perverted, they should be such as would correct it. And in all cases, the causes that have been operative in producing the morbid conditions, should be removed as far as practicable. And this brings us to one of the leading questions for discussion this evening, namely, how far does medical science, or the present state of human knowledge, reveal to us the exact causes of the more important acute, or endemic and epidemic diseases, such as typhoid, typhus and scarlet fevers, diphtheria, yellow fever, plague, cholera, &c. To the non-professional mind, and even to many of the less thoughtful in the profession, it may seem a very simple and

easy matter to determine the cause or causes giving rise to any particular form of disease.

And if we could rely on the dogmatic assertions of closet speculators and partial observers, we might have every question of causation settled, at least, until it was contradicted by the next theorist.

One of the most transcendental speculators of a past generation, confidently asserted that all chronic diseases, at least, were derived from syphilis, sycosis and itch.

Unfortunately, however, he left us entirely in the dark as to what caused either of this prolific trio of ailments. Another more ignorant founder of a special sect, based his whole system of medicine on two very simple dogmas. The first was that *heat* is life and *cold* is death. The second, that minerals exist in the earth, gravitate downwards, and, if used, would pull men after them into the earth; while vegetables grow upward, symbolical of life, and are, therefore, the only proper remedies. So simple a basis of course required nothing more than steam, Cayenne pepper and "number six" for its superstructure of medication. But if this was the absurd deduction of an ignoramus, not very unlike it have been the theoretic deductions of many who have occupied high places in the profession, and whose writings constitute an important part of our medical literature.

Take, for instance, the theory of Broussais and Rush, that all disease is primarily irritative or excitant, consequently originating from causes of an irritant or stimulating character, and requiring sedative or depressing agents as remedies. Or that of Dr. Chambers, presenting just the opposite view, namely, that all disease is a diminution of life; and, therefore, that all remedial agencies must be such as are calculated to excite or sustain life. Or, to come still closer to the present time, the recent general application of the microscope, in the study of all departments of physical science, and among them those of anatomy, physiology, pathology and etiology, has brought out to view, substantially, a new kingdom of nature, consisting of vegetable and animal germs and organizations pervading the air, the water, and almost everything else that is capable of being brought under the field of the microscope.

As might have been expected from the well-known tendency of the human mind to make coincidences stand in the relation of causes and effects, and to deduce conclusions from partial or incomplete observation of facts, the discovery of some variety of organic germs in the evacuations of cholera patients, in the air and water of malarious districts; in the blood of those laboring under syphilis, scarlet fever, &c.; and in the membranous exudations of diptheria, thrush, and various cutaneous diseases, led to the confident assertion of each successive observer, that the co-existence of these germs was sufficient proof that they constituted the efficient cause of whatever disease they were found associated with. Hence the rapid development and popularization of the germ theories of causation of diseases, and especially of all those of an acute endemic or epidemic character.

As similar germs to those found in connection with certain diseases are known to be developed and multiplied by the chemical process of fermentation, so their multiplication in the human system, or its evacuations, is supposed to be carried on by similar processes. Hence the grouping of a large number of diseases under the general terms, zymotic, or infectious. Assuming the zymotic and germ theories in regard to the efficient causes of disease, it was a natural and not illogical inference that the diseases so caused would be propagated by the reproduction and multiplication of the infectious germs in some one or all of the emanations or evacuations from the bodies of the sick. Hence, to destroy these emanations, or so modify them as to prevent the fermentation and evolution of germs, became one of the chief means for preventing the propagation and spread of diseases. Thus, no sooner had Doctor A. promulgated his discovery of certain supposed peculiar microscopic germs in the evacuations of patients affected with epidemic cholera, than these evacuations were made the medium of spreading the disease throughout the world, by being thrown into privies, mingled with surface water, attached to soiled clothing, and deposited in unsuspected places by travelers. And the well-known class of antiseptics and disinfectants were speedily brought into requisition to intercept the fermentive processes, and thereby render the dreaded evacua-

tions harmless. The same results followed the adoption of the germ theory in relation to all other diseases. Hence, in the many recent letters and discussions in the Chicago daily press, concerning the prevalence of scarlet fever and diphtheria, three out of five of the writers based their thoughts and remedies on the assumption that these diseases were caused by zymotic or germ propagation, and proposed some kind of antiseptic, like the carbolates, sulpho-carbolates, permanganates, chlorates, or sulphites, either as remedies or preventatives, or both.

But what evidence have we that any form of epidemic disease is, or has been, caused by organic germs, either vegetable or animal? I answer, just the same evidence that Samuel Thompson had, that heat is life and cold is death, namely, simple coincidence, nothing more, nothing less. That certain organic germs were discovered in epidemic cholera evacuations, especially after they had been allowed to stand several hours, is true. I have seen the same myself; but that does not prove that they produced the disease.

On the contrary, more extended observation developed the fact that germs of the same identical character were discoverable in the evacuations of ordinary cholera morbus, summer complaints of children, and probably in any serous evacuation from mucous membranes, if treated in the same manner. There is no doubt but Doctor B. discovered organic germs in the blood of his patient laboring under syphilis, and he would have probably discovered the same bodies in the blood of any of his patients not affected with syphilis, had he taken the trouble to have extended his observations that far, before hastening to his conclusion that they were the cause of that vile disease.

The same remarks may be made in regard to the propagation of scarlet fever, diphtheria, &c., by fermentation or germ evolution. Indeed, the whole theory of zymosis and germ developments, as causes of disease, must be regarded in the present state of our knowledge, as only another specimen of hasty generalization, or the deduction of important conclusions from a very incomplete observation of facts.

And the same remark would be true, if applied to all the claims hitherto made in regard to the efficacy of particular remedies as preventives of disease. Take, for instance, the

sulphites, sulpho-carbolates, or belladonna, as remedies administered for the prevention of scarlet fever. Most of you might suppose it a very easy matter to determine their value by simple trial in a given number of cases. And so it would be, if it were a fact that every child unprotected, when exposed to scarlet fever, actually took the disease. But such is not the fact. On the contrary, quite a large percentage of those exposed in every epidemic escape an attack. During the present season, I have been personally acquainted with two large families, each closely connected with quite a circle of other families, in each of which a single child was attacked with severe scarlet fever. The well children were simply kept from free intercourse with the sick ones, the house and sick rooms kept well ventilated and cleanly, and not another child in either family took the disease. Now, if, when the disease first appeared in these families, suitable doses of belladonna or sulpho-carbolates had been given to each of the well children, while the disease remained in the respective houses, and no one had taken it, doubtless both the families, their friends, and perhaps the attending physician, would have deemed their exemption as full proof of the efficacy of the preventive remedy administered, And yet, you perceive that such a conclusion would have been entirely fallacious. It is on just this kind of evidence, however, that the reputation of all the so-called preventive medicines rests. To determine the protective value of any particular remedy, it is necessary that careful observations and records be made during the prevalence of several epidemics of scarlet fever, to ascertain first the ratio of those who escape attacks after exposure, without the use of any drug; and then a parallel series of observations and records in relation to the ratio of those who escape attacks after exposure, under the use of some particular remedy.

It will be obvious to you, that such a mode of investigation would require both time, and more opportunities for observation than often fall to the lot of a single practitioner; and hence to make it entirely reliable, would require the co-operation of several practitioners occupying different localities; but subjecting the results of their observations to a careful comparison with each other.

It must be acknowledged that but few attempts have been made to determine the value of preventive medicines in the manner here indicated. But so far as such attempts have been carried, they have not sustained the reputation of any remedy as a reliable prophylactic.

To those who have given little thought to the subject, it may appear surprising that so little is known definitely in regard to the direct exciting or essential causes of diseases. But no such surprise will be manifested by those who comprehend the complexity of the problems involved.

The human system itself is an exceedingly complex organization, made up of a variety of delicate textures, and a series of organs, the functions of each bearing an important relation to all the rest, and the whole undergoing constant molecular change in two opposite directions, the one carrying the food and drink we take through a succession of changes, until it is converted into blood and flesh, the other converting the materials of the tissues into effete or waste matter, returning it into the blood, to be carried to the organs designed for its elimination, such as the skin, kidneys and lungs. In addition, every part of this complex machinery is pervaded by a system of nerves, delicately sensitive to every impression, either from within or without. If we reflect that this complicated mechanism called man, is continually in contact with, and pervaded by, all the imponderable forces, such as heat, electricity, &c., and surrounded by an atmosphere not only composed of its fixed elements of oxygen and nitrogen, but containing in addition an ever varying quantity of light, heat, electricity, aqueous vapor, and an almost endless variety of emanations, both organic and inorganic, from the surface of the earth, we shall see that every question relating to the action of particular agents as causes of disease, is sufficiently complex to require the greatest care to avoid the adoption of deceptive and erroneous conclusions.

Another difficulty in studying the causes of epidemic diseases arises from the fact that all of them are irregular in the time of their appearance, and temporary in their duration. Hence, unless a permanent system of observation and record is established in a large number of localities, embracing a daily record of the

atmospheric conditions relating to heat, pressure, moisture, electricity, ozone, and direction and velocity of winds; microscopic examinations of the air and water; and a careful record of the date of attack of all diseases, the causes of which are in question, we cannot have in any given epidemic the data necessary for determining what germs, substances, or conditions are peculiar to that epidemic, and what are simply coincident. It will be evident to you all that the continuous co-operation of the meteorologists, microscopists and practising physicians, in such parallel courses of observation, through a series of years, is a work of no little magnitude and difficulty. And yet so long as we are without the results of such observation, we are certainly without the data necessary for determining the essential causes of epidemic, and even endemic, diseases. Again, the well-known temporary duration of epidemic diseases in any given locality or community often leads to errors in regard to the efficiency of sanitary regulations. Almost every epidemic has its period of rise, climax and decline.

Hence if it so happens that after an epidemic of scarlet fever, for instance, has progressed until public attention is aroused and the epidemic has reached its climax, as is usually the case, some special sanitary measures are adopted, the disease soon begins to decline, and in a few weeks disappears. Of course the sanitary measures adopted receive the credit of having "stamped out the disease," when, in truth, it had disappeared in strict accordance with its own law of decline. Perhaps you are ready to ask, then, if so little is known concerning the essential causes of disease, and medical literature is so full of errors and false conclusions—of what value is medical science to the community; or rather, why call it a science? I answer that all these theoretic dogmas and errors arising from partial observation of facts, bear the same relation to medical science that the plutonic, neptuvian, and glacial theories do to geology—or the speculations of a Darwin and a Huxley do to anthropology and natural history. While the advocates of these theories are amusing the world with their grotesque mixtures of facts and fancies, the great body of geologists and students of natural history are steadily adding fact to fact, enlarging the boundaries, and extending the usefulness of their

respective departments of science. So the great body of medical observers have been, and still are, steadily accumulating the facts and perfecting the art of medicine. And while the collateral sciences of physical geography, meteorology, organic chemistry, and microscopy have not yet enabled them to identify the essential causes of epidemics, they have, nevertheless, acquired a mass of facts relating to the circumstances and influences, that favor the development, propagation and malignancy of such diseases, of the highest value to mankind. The results obtained may be briefly expressed in the following propositions:

1st. That confined and impure air; water impregnated with organic matter; unwholesome and insufficient food; uncleanliness of person and premises; and depressing mental influences directly favor the development, propagation and severity of all epidemic and infectious diseases.

2d. That so far as these conditions can be prevented, or removed when they exist, in the same proportion will we limit the amount, and lessen the severity of the diseases to which we have alluded. It is on these propositions that all those modern sanitary measures, embraced under the heads of ventilation, cleanliness, sewerage, water supply, and wholesome food, which have so markedly diminished the ratio of sickness and mortality in many of the most populous communities in Christendom, are founded. Many generations may yet pass before medical men can identify and study the exact poison or agent, whether organic or inorganic, that constitutes the efficient cause of scarlet fever, or any other epidemic disease; and we may expect little benefit from specific medicines given for the purpose of neutralizing or destroying such supposed cause. But every carefully observed fact that enables us to see more clearly the conditions which favor the development, spread, and severity of any given disease, will be of value in suggesting, to the thoughtful and well-disciplined mind, practical measures for modifying or preventing those conditions.

Such, we regard as the present status of medical science in relation to the essential causes of epidemic diseases,and the attempts at prevention by specific medication.

ON THE BEST MEANS OF PROMOTING UNION BY FIRST INTENTION.

By E. W. LEE, M. D., Chicago.

Ninety-nine practitioners out of a hundred will proceed to dress an incised or lacerated wound by bringing the edges together, and maintaining them in position—or trying to—by means of strips of adhesive plaster or interrupted sutures of silk. For several years I have been in the habit of using needle sutures for all wounds, varying the size and shape according to the location and depth of the wound. For all wounds not very deep, I use Sharp's No. 12 cambric needle. It is very small, and is easily introduced and extracted.

If plaster be used, no matter how carefully it may be applied, in a few hours it stretches, permitting the edges of the wound to gape although the apposition was perfect when leaving the hands of the surgeon. If interrupted sutures of silk be used in the ordinary way, the edges of the wound are brought together, leaving underneath a cavity for the accumulation of discharges and subsequent suppuration; the silk causes more or less irritation immediately, it begins to cut, and unless taken out in 24 hours, leaves an ugly mark at the seat of the suture. In all wounds over one-third of an inch in length, I use these needle sutures. We all know what an unirritating substance steel is. Needles have entered the body and remained there for years, causing no inconvenience whatever, coming out in an entirely different location from where they had entered. Suppose we have a wound to dress, say one and a half inches long. I proceed in the following manner: Carefully cleanse the part of all foreign matter, *and wait for hemorrhage to cease.* Then if the location and depth of the wound be suitable, take a No. 12 cambric needle in a needle holder, insert it a proper distance from the edge of the wound, push it through at about half the depth of the wound, bring the point out about the same distance on the opposite side.

Take now a piece of stout ligature silk or thread, and surround the transfixed tissue and draw the edges of the wound together. Put in as many sutures as may be necessary to secure perfect apposition, and the dressing is complete. It is useless to put on plasters in addition; they stretch, they are unsightly and unclean. In dressing wounds by this method pressure can be made so as to bring the edges of the wound together *from top to bottom*; no space is left for secretions to accumulate; no chance is left for stretching, and for the edges of the wound to gape; the pressure being so equally distributed, the suture does not cut through as a silk one will. The only objection to allowing the sutures to remain for four or five days, is that after forty-eight hours they are difficult of extraction. This difficulty I have overcome by having the needles electroplated with silver. To extract the needle, I take the end in the needle holder, gently turn it round in the wound once or twice, and then withdraw it. I do not cut the silk, it remains adherent, the blood and serum forming an incrustation, holding the silk in position; this I am careful not to disturb. I once dressed an incised wound 24 inches long, in the manner described. Between 40 and 50 needles (No. 12) were used; every portion of the wound healed by first intention. The advantages of this plan do not by any means end here. Suppose the radial, temporal, or palmar arteries be wounded; many practitioners not expert will spend considerable valuable time in seeking and ligating any of these vessels, and consequently more loss of blood than need be is occasioned. Here the needle suture is not only the best means of bringing the edges of the wound together, but it is the quickest, easiest, and safest means of stopping the hemorrhage by acupressure. I have repeatedly adopted this plan in all the above-mentioned accidents, and always with the utmost satisfaction. Suppose union by first intention does not take place; then cut the silk, withdraw the needles and the amount of retraction that takes place will not be nearly so great as it would had they not been used. I usually succeed in getting union by first intention, and when I have failed it has been either from a faulty condition of the system, or from being too hasty in the application of the dressing. In incised wounds about

the neck and face, where primary union is so desirable, this plan is peculiarly suitable. In scalp wounds, prudent practitioners hesitate to use silk sutures, so apt are they to set up erysipelatous inflammation; to make plaster adhere it is absolutely necessary to shave the scalp for a considerable space around the wound. Use needle sutures, and it is not necessary to remove any hair at all, and they may remain in the scalp as long as may be necessary with impunity. This may seem a very small matter to say so much about; but with most of us, dressing wounds is an every-day occurrence, and any improvement that may be introduced, however small, is of practical importance. I have tried this plan so long and thoroughly, and with so much gratification to myself and patients, that I feel it a duty to urge its substitution for silk and plaster entirely. It is not, of course, original with me, yet it is not adopted to any extent by the profession. I am confident that if the dressing be carefully done by those adopting this method, the attending success will be so uniform as to prohibit the employment of any other.

A FŒTUS ARRESTED IN ITS DEVELOPMENT AT THE FOURTH MONTH, AND CARRIED TO THE FULL PERIOD OF GESTATION; OR, TWO HUNDRED AND SEVENTY-SIX DAYS.

By E. DAY, M. D., Grand Tower, Ill.

The history of the following case is presented to the medical profession, not because it is supposed to possess much practical importance, but as showing what does sometimes happen under certain conditions and circumstances.

On the 8th of August last, I was consulted, at my office, by Mrs. I. M., aged 26 years, married, and residing about three

miles from Grand Tower, in regard to her condition; she believing herself to be in the eighth month of pregnancy. Her appearance, and the history of her case, gave strong assurance of the fact.

She made the following statement: Her catamenia ceased on the 5th of December, 1875, (with one exception hereafter mentioned) after which a gradual enlargement of her abdomen took place, as in her previous pregnancy, and continued for five or six months; but, of late, this development has not kept pace with her advancing gestation.

Her health had been, and still continued good. Her mind, however, has been much disquieted, from the fact that she has never felt any movement, indicating fœtal life, as she experienced during her first pregnancy; and, also, from the fact that a recurrence of the catamenia took place about nine days since, and lasted three days.

She appeared to be in an advanced stage of gestation.

Under these circumstances, I did not find it necessary to ascertain by the aid of the stethoscope whether the *bruit placentaire* existed; or to remove any lingering doubts in regard to the correctness of my diagnosis.

I dismissed the case, as one not requiring any medical interference, and advised her to banish all anxiety from her mind, as there appeared nothing in her case of an alarming character; and assuring her that a few weeks would perhaps demonstrate that, "whatever is, is right."

On the morning of September 6th, 1876, I was summoned to attend her at her confinement.

I was informed, on my arrival, that she had been in labor several hours; and, on examination, found the os uteri well dilated with the amniotic bag protruding. A few pains sufficed to complete the work of expelling, unruptured, the membranous sac, with its contents, and also the placenta.

In the membranes there were enclosed *the remains of a fœtus, of about four months development*, but really nine months of age.

The sac contained also about four ounces of thickened amniotic fluid, free from any offensive odor. The fœtus measured eight inches in length, when straightened; and

weighed a little more than nine ounces. The tissues of the fœtus had been absorbed to such an extent, as to leave only the integument and hardened muscles attached to the skeleton; the placenta also had undergone a similar process of absorption.

As the uterus had been tolerant of a fœtus, arrested in its development and slowly undergoing absorption, for four or five months, may it not be rational to infer that the mental condition of this patient—believing that she had reached the full period of her pregnancy—had the effect of inducing labor pains and the expulsion of the contents of the uterus; which otherwise might have been retained to an indefinite period?

As I did not subject my patient to an examination, in the first instance, and without giving much importance to the wanting link in the chain of symptoms, of normal gestation, I concluded, from the absence of the catamenia, for seven or eight months, the enlargement of the mammary glands, and the general embonpoint of my patient, that she was proceeding to the full period of a natural pregnancy; and consequently was not a little surprised at the singular denouement of the case.

SULPHURIC ACID *vs.* EPISTAXIS AND STINKING FEET.

By JNO. J. TAYLOR, M. D., Streator, Ill,

It gives me pleasure to be able to call the attention of the profession to the use of sulphuric acid in the treatment of "nose bleed" and stinking feet.

The acid acts kindly and promptly in all cases not connected with a malignant taint, or where due to polypus, and especially in individuals at or near the age of puberty.

Even in polypus, after its removal, the acid is beneficial.

Its action is accounted for in several ways, first, perhaps, because the blood is rapidly thickened,—made more plastic or subalkaline. It also acts as an astringent and tonic, giving tone to the weakened vessels and to the general system.

Its use requires some care in cases where hemorrhage is very free and frequent, as a sudden arrest sometimes produces unpleasant head symptoms. My plan is to prescribe the acid *two to four times a day in sufficient quantity to make half a glass of sweetened water, quite tart* to the *patient's taste.*

At first, the patient will crave the drink much more tart than after a few days. After giving it three or four days, whether unpleasant head symptoms come on or not, it is best to discontinue its use a couple of days. It seldom becomes necessary to repeat its use after a couple of weeks.

There is one other use to which sulphuric acid is of special benefit. I mean stinking, sweating feet.

Given two or three times a day, as in nose bleeding, the patient will quickly be relieved of this unpleasant affection. In this class of cases, however, I frequently find it necessary to give some mild ferruginous preparation, such as the Ferri et Potassæ Tartras, in sherry wine—5 to 7 grs. a dose. The latter should be given just after dinner, and the acid in the morning and evening, and on an empty stomach.

TREATMENT OF AN EPITHELIAL CANCER OF THE TONGUE WITH INJECTIONS OF NITRATE OF SILVER.—RECOVERY.

By. DR. W. H. VITTUM, M. D., of Baraboo, Wis.

The treatment of malignant tumors has always been a *bete noire* to the profession, and any advance in the direction of a successful struggle with them will be hailed with joy. The object of the present paper is to give an account of a case of

epithelioma of the tongue, successfully treated by parenchymatous injections of nitrate of silver.

On the 26th of Dec. 1876, Mr. M. N., aet 59, applied to the writer and his partner, Dr. M. M. Davis, for treatment of a "bunch in his tongue." Upon examination, a tumor of the size of an English walnut was discovered, about one inch back of the tip of the tongue, and situated on the right side. The entire thickness of the tongue was involved. The surface of the tumor was covered with roughened and warty excrescences, and all the tissues in the immediate neighborhood of the growth were in an infiltrated condition. The tumor had increased in bulk very rapidly, having attained its present size in about two months. There was a great deal of lancinating pain, accompanied by extreme tenderness and a swollen condition of the whole organ.

The tenderness was so great that eating solids was impossible. The neighboring lymphatic glands were intact. The diagnosis of epithelial cancer of the tongue was made.

Having seen an account of the successful treatment of epithelioma with injections of nitrate of silver by Dr. Wilde, in the Chicago Medical Journal and Examiner, for March, 1876, we determined to try their efficacy in this case.

The tumor was accordingly injected in several places with a solution of nitrate of silver, (one grain to the ounce). The intention was, as Wilde suggested, to inject enough to saturate the tumor. This saturation was repeated daily for seven days, and then every alternate day until ten sittings had been held, when the tumor was pronounced cured. There was a very marked amelioration of symptoms as early as the day after the second injection.

Such prompt and complete success with a tumor which was so rapidly growing, and whose malignant nature was so evident, should fill us with the hope that at least one species of cancer (when it occurs in accessible situations) may be stricken from the long list of incurable diseases.

Translations.

GYNÆCOLOGY IN JAPAN.

By A. WERNICH, of Jeddo.

[Translated by Dr. James I. Tucker, Chicago.]

It seems to me that in view of the prejudices and the false impressions which have been conveyed by those writers who claim to portray the peculiarities of the Japanese people, especially the women of Japan, I am justified in communicating my own impressions to the circle of cultured readers who are especially interested in gynæcology.

Since my arrival, in Nov. 1874, a little gynæcological department has been fitted up here, consisting of ten or twelve beds. This is the first thing of the kind in Japan, and it is my great ambition to keep it constantly filled. But a small number of the patients who come to the Dispensary (*Poliklinik*) are able to conquer their aversion to submitting themselves to an examination by many different persons for the purpose of instruction. Consequently, the material, even including the cases derived from private practice, is at best nothing to boast of. All information must be obtained by means of an interpreter, and by this round-about method, not only much time is lost, but it is rendered very difficult to get at the complicated physical and mental conditions of the patient.

I send you a brief description of the physique, habits and constitution of the women, as an introduction to a communication concerning menstruation and female diseases.

The Japanese women are not beautiful, though much may be said to their praise.

No one would be willing, however, to say seriously that he had ever seen in the whole country a really perfect, symmetrically built, nobly-formed woman. I abstain here from a description of all mere outside appearances, such as the thick hair, resembling a horse's mane, whose braids (not curls) are held in place by the free use of fats, generally oil somewhat

rancid; the impure complection, which they conceal by means of powder applied to the neck, chin and cheeks, but which, nevertheless, presents a dirty, grayish-yellow appearance upon the forehead and at the borders of the hair; the scar of moxæ also, and other popular remedies, on the back and breast. I refer especially to the structure of their bodies. If your ideal of female beauty be Juno, Venus or Hebe—it is wholly unknown in Japan. One is bony, and has a neck like an ox; another has hanging breasts and frightfully broad hips; a third is lean and lank, with withered arms, sunken abdomen, and prominent pelvic bones; but all three would banish all delusion by the characteristic Japanese crooked legs. The admirers of the women of this country praise the round, graceful form of the neck and shoulders; and it is not to be denied that the not ungraceful lines of these parts, which proceed from the moderate deposit of adipose tissue, together with the velvet-like softness of the skin, and somewhat pleasing color make a happy combination. With the neck and arms, the *danseuse* makes her graceful movements, while her legs under the long garments, are seldom visible.

The gait is as ungraceful as possible. They shove one foot along after the other, in their stilt-like, horribly slippery and noisy wooden shoes, which the woman of the better class wears on the street, as well as the peasant girls, with crooked knees and prominent belly, the rest of the body being bent backwards; only the aspect of the upper part of the body sometimes carried with graceful ease, gives some relief to the offended eye and ear. This is equally true of the unmarried and married women of fashion. I need not mention that those women who adhere to the custom of shaving the eyebrows and blackening the teeth do not present a particularly charming appearance.

The pelvis is broad and very capacious. A pelvic deformity, in which the pelvis is generally narrowed, I have seen but once, as a congenital defect. The symphysis forms a very large obtuse angle. I do not recollect among my cases to have seen a narrowing of the introitus vaginæ. The growth of hair upon the mons veneris is in direct contrast to that upon the head,

and the thickness of the individual hairs is difficient; remarkably seldom it forms a triangle, having an oval contour corresponding to the vulva. The labia are lean, and even in young persons, very flabby.

The vagina is short; I never found one over 7 cm. long. I have never seen a hymen. As a general thing the perinæum seemed to be not particularly broad—congestion and tumefaction of the portio vaginalis was a matter of as frequent remark in my examinations, as in European women; it did not escape even the observation of Japanese physicians and interpreters.

According to unscrupulous travelers who have written about the habits and customs of the people, and who have derived their information from brothel experience at Nagasaki or in hospitable taverns of Kanagawa, the Japanese women are regardless of propriety, and destitute of shame. I am glad to say that in this respect I share the opinion of so distinguished a writer as Mitford, who has resided here many years; the author of "Tales of Old Japan" has done full and deserved justice to the Japanese ladies of patrician and plebian ranks, who are not prostitutes. Even the waiting-girls of respectable tea-houses are unapproachable to strangers, and old experienced suitors do not forget their unsuccessful efforts to seduce this or that tantalizing dancing-girl. The stories about guardians and relatives abandoning women to indiscriminate prostitution rest upon misunderstanding or brag. The numerous contracts made between Japanese maidens and their European neighbors are the best evidences of it. It is the legalization of a custom, which, according to our ideas, involves an immoral relation, that has given to these women the unenviable reputation of being frivolous and loose. Every marriage may be dissolved; it is a contract holding in force a few years only. He who has kept his wife for this length of time, or longer, seldom abandons her. If she is rendered useless by sickness or debility, so as to be unfit for sexual intercourse, she provides for her husband one or more concubines, and it is understood as a matter of course that the man shall possess every means necessary to satisfy his animal passions. All these women as-

sist one another in the duties of the household—an admirable provision in view of the natural indolence of the Japanese women. The first always officiates as house-keeper, and can then expect only acquiesence on the part of another, who has borne a son, because she herself has not been able likewise to provide for the family. The unmarried, but not abandoned Japanese woman of ordinary standing, always demands from the foreigner who troubles himself about her, a sort of marriage contract, for a month. However different this month-marriage may seem from a real marriage, we should not underestimate its significance. If any one is inclined to take a different view of the matter, he should bear in mind that this marriage relation is legitimate, and that the woman is, for the time being, really the wife of the stranger. To the fullest extent she takes possession of his house, bag and baggage, arranges her allotted apartments in all their details, and does not fail with the universal skillfulness of woman, to adapt herself to her new circumstances, and to make her function very important. She stands in an arbitrary relation to her domestics; she is obliged to pay a small tribute (generally 15 Rio=60 German marks) from her income to every one in the house, and therefore each one likes her and renders her assistance in all things. Then these persons endeavor to make themselves indispensable; they attend to every little affair, they satisfy every whim of the lord of the household, they provide for his comfort; in short, they are loyal in the highest degree in order that their term of service may extend beyond the limits of the appointed month.

In this way, attachments are formed, which, springing from a change of views, and cooling down of passion, become at last enduring. I am acquainted with many Europeans who have lived with their Japanese companions six and eight years, and who have given up all idea of dissolving the marriage relation and of returning home. And yet I have been speaking thus far only of maidens of low degree. A family which prides itself upon its respectability, sometimes, it is true, will give its daughters to a foreigner, but only under the express condition that she is given him for a definite period of time, while

he is in the country, and that she is not to be taken out of the country.

In one thing observers agree, viz., that these so-called "fast" women, in most cases, are thoroughly constant. In point of attachment experiences differ. This much is, however, certain, that in respect to food and clothing they come far short of the requirements of the European. They enjoy only Japanese food, which they prepare for themselves; even in respect to drinks, cake, dainties and the like, there is no commonality of taste; neither are they capable of being educated to our mode of living. Watches and rings are the only trinkets which they possess and highly prize. From all other foreign notions they stubbornly abstain. Yet after years of living together, the Japanese women do learn from the European to make use of a pillow, made of the makura. These are made so the back of the head hangs free, in order that the hair may not become disheveled during sleep. But in clothing they will brook no change. The cloth bound about the hips in the form of a little under-garment, three or four folds over one another, like a German dressing-gown, which is fastened by as many smaller girdles, and even the foot wide upper garment, (obi) with which we are already familiar, through illustration, are clung to with pertinacity, in spite of the greatest love for the foreigner. In customs the women are more conservative than the men.

That, which, despite all this incongruity, gives them the power, in many cases, to fascinate the men, has doubtless given them in part their bad reputation. As many observers assure us, they will not submit themselves to the man whom they have once loved and left. How much this is due to natural instinct, or to a feeling of shame, I am not prepared to decide. At all events, I hold to the opinion, after many opportunities to observe, that the last reason is not the predominating one.

And now I come to my own experience which I have gathered from a large number of gynæcological examinations. The Japanese certainly do not regard the naked body as something unclean, and no one will now anxiously veil his legs

and his breast. The greatest care however is taken to prevent the exposure of the genitals, which are guarded with the fullest consciousness of shame. Every male patient, if he has wholly disrobed himself for the purpose of examination, still holds the little T-bandage-like cloths (Fundusi) about his hips; every woman hesitates in the most natural way to lift the little wrapper or girdle, and yields only when she is shown the medical necessity. I have seen women weep bitterly for shame when treated by the assistant physicians with undue regard to their feelings, and frequently I have been requested not to push my examinations of a woman in confinement, or with an abdominal tumor.

With reluctance the mother of a half-clad child uncovered it for the purpose of examining its chest for pulmonary disease, and I could not get one-fifth of the female patients who were to be placed upon the table in the gynæcological clinic to come into the hall where the students were present, without being first wholly concealed.

They have apparently great confidence in the physician; delicacy and prudence, particularly in hysterical persons, develop the same foolishness and deception that we observe in half-educated European women under the same circumstances. The women exhibit a degree of fortitude under the discomfiture and pain produced by minor operations and frequent examinations, and know very well how to restrain themselves. As a rule it is difficult for them to master a certain degree of sexual erethism, which happens to them more frequently than to our women undergoing like examinations; and on account of the erection of the clitoris, of the portio vaginalis, they readily secrete the glairy cervical mucus, and give expression to the well-known signs of sexual excitement, hurried respiration and disturbed utterance.

Yet this excitement, with most of them, became less and less upon repeated examination. The number who attend our gynæcological clinic and the dispensary has steadily increased during the course of the last winter, so that the department will be enlarged in the new hospital building, which will soon be ready.

With characteristic Japanese politeness, the patients always accepted willingly the chosen local appliances for treatment, (injections, tampons, suppositories, pessaries, hip baths, etc.,) and said that they had followed the directions with great precision. I am obliged to doubt this exactness in many cases, in accordance with those who have had much experience with the Japanese character, yet I believe I should restrict my doubts to the minority.

The weak and tardy reaction which forms the dominant feature in the physical life of the Japanese, and impresses upon almost all their sicknesses a relapsing and somewhat protracted course, has often taxed our patience in gynæcological cases. Yet we cannot affirm that the women, on account of their particular anomalies of constitution in this respect, are worse than the men.

Confined to the narrow limits of the house, and the family knowing nothing of providing food, scarcely thinking of their own advancement and an independent mode of life, not yet susceptible to the allurements of passion, the Japanese maiden awaits with the utmost resignation the period of the first menstruation, and lives in the manner several years more, in order, as soon as an opportunity offers, to unite her destinies with a suitable man; it may be for a limited time, it may be for life. Hinderances to marriage in the modern romantic sense, do not exist; but as long as she still lives in the house of the man who feeds and clothes her, she must be true to him. For several years the husband, who may discover inconstancy in his wife, has had the right to put her to death without ceremony. Among the eight reasons on account of which a marriage may be laid aside, besides the expiration of the term, and after years of living together, figure especially physical defect, (for instance, lepra, stinking breath,) loathsome skin-disease (herpes and the like).

As mothers, the Japanese are unweariedly devoted to their children, from an instinctive affection. As an instance in common domestic life, may be mentioned the continual carrying about of the child upon the back in the dress of the mother, so that among twenty who are attending to the duties of the

house, certainly we see fifteen in their common gown, skipping about with their child, for all the world as if a parasite were upon the mother. If there are older children, one carries the other upon the back (Umbo), so that considering the youth of the bearer, we are often in doubt which head belongs to it and which to the little brother or sister. Hysteria exists even in an aggravated degree, but we are led to believe no less frequently in the feminine than in masculine sex. Spasms are rare as well as contractions and convulsions of single muscles and limbs, also the laughing and weeping paroxysms which in my experience have seldom occurred. This hysteria is quite exceptionably referable to real trouble in the sexual organs. The great majority of hysterical Japanese are among the married women, who have passed through one or more confinements. Older persons, too, at the cessation of menstruation, become hysterical.

The Japanese women are in general very fruitful. The houses would probably be more noisy with children, were it not for long nursing and abortion. The foreigner, who makes a Japanese woman his concubine, declares in very many cases that he does not wish to have children. It is left with her, however, whether she will fulfill his wishes or not. The mixed breed, which came under my observation, made a very pleasing impression. I remember particularly several little Franco-Japanese that looked like pretty little French children. These children for the most part remain in the country, and alas! become accustomed to European clothing and education.

They are treated with indulgence and respect, though they are scrutinized by every genuine native of Japan. And certainly they find their way back with difficulty to re-adoption of the uncommonly unassuming manners of the natives. After the departure of the father, the mother returns into the circle of her family, but after that she is seldom taken to wife by a Japanese.

After these general observations, I come to speak next of

MENSTRUATION.

The menses begin in the 14th or 15th year and do not cease until about the end of the 40th year. In reference to this

fact, there is a play upon numbers of Chinese origin, as follows: In woman the power of reproduction begins at 7+7 and ends at 7x7; in man it begins at 8+8 and ceases at 8x8. Fewer persons menstruate very early than very late, and the beginning of the period before the 12th year of age, belongs to the remarkable occurrences. Girls, whose menstruation is tardy, (occurring in the 18th year), are not generally sick—still more rarely anæmic in the sense in which we employ the word—but they are simply backward in evolution, remain artless like children. "They do not trouble themselves about hairpins and the artistic toupee," said my interpreter. They do not powder their necks nor put on the girdle of the young woman, but dress and expose themselves like children, play with the boys upon the street, etc. Their physical and mental development is somewhat anomalous. They remain angular, while on the other hand the young Japanese woman who has undergone the menstrual evolution, generally becomes athletic, her breasts and hips become extraordinarily broad. Regarding the amount of menstrual flow, it would, perhaps, be impossible to arrive at a correct estimate, as we do at home, after observation extending over a number of years. There is a very peculiar arrangement, which the woman makes use of during menstruation, and which controls to some extent the amount of the flow. She puts on the usual well-constructed T-bandage, which is called *kama.* But this is not sufficient to absorb the fluid. Something more is necessary. The people of the Orient are so rigidly observant of the rules of cleanliness that they never use a second time the clothing and pieces of cloth which have once been soiled with the fluids of the body—blood, pus, and discharges from the nasal and bronchial mucous membrane. This fact is well-known from the description which writers give of the Japanese and Chinese handkerchiefs made of paper. In the higher ranks of society, the menstrual excretion is considered unclean, and consequently paper is used for its absorption and removal. From the abundant store of paper-leaves which are used for various purposes, the women squeeze pledgets into the shape of balls of the size of almonds or walnuts, and stuff these into the

vagina according to its necessities. A woman, who, during this period, visits for example the theatre, resorts to this procedure several times in the privy. She knows quite exactly when these tampons which she has introduced have soaked up the blood and then squeezes up a new one. In severe cases of *fluor albus*, I have sometimes found these paper-balls in the vagina. The number of these tampons which is introduced corresponds to the duration and abundance of the product of menstruation. It varies from six to twelve.* A short menstruation is regarded as a sign of good health; much less stress is laid upon consistence, color and foreign admixture.

In healthy women menstruation lasts three to four days; in hospitals, in different pathological conditions, naturally longer. A popular song, not altogether decent, in which the maiden consoles her lover, to the effect that he must content himself during this period without normal sexual enjoyment, fixes the time at seven days. This reckoning has been carefully observed, as it is valuable in diagnosis to notice any shortening of the stage of menstruation, as well as the length of the interval. Physiological menstruation is attended by light, labor-like pains in the abdomen, and some sense of pressure in the temples. Pain and sensation of cold in the loins, drawing-sensations in the thighs, pains in the back of the head, and in the forehead, are well-known pathological signs.

As an emmenagogue (not purgative), an infusion of the root of *rubia cordiflora*, is used, which the women call *shenkong akane*. Yet of late years preparations of iron and cinchona, pediluvia and sinapisms, have gained popular favor. Sometimes mustard and capsicum are used internally. Cessation of the menses is considered by the Japanese women the most reliable point from which to reckon pregnancy. When the year was officially divided, as formerly, into lunar months, it was still easier, as all she had to do was to reckon ten such periods of time before confinement. Singular enough she is perplexed if the last menstruation continues from the last day of a (calendar) month to the first of the next (*zéki matangi*), as the technical expression is. The reckoning is in-

* In some of the provinces paper wadding is used.

exact, for she counts in the month that has begun as a whole month. She makes a miscount in this manner.

The women and the physicians are tolerably well acquainted with other things which may cause a temporary amenorrhœa. That acute diseases, attended by fever as well as radical abortions, may be followed by this as a consequence, is universally accepted. The relation of menstruation to lactation has been the subject of careful medical observation. I was told that "if a woman has never been pregnant before, lactation may last five years; it extends into the fourth year as a regular thing, even when the child does not depend exclusively upon the mother's breast for nourishment. Yet the milk is not abundant longer than three years. Menstruation regularly reappears during this long period of lactation; yet it is regarded as unusual for it to reappear prior to three months after confinement. Return of the menses is not thought to exert an influence upon the quantity and quality of the milk. If menstruation occurs but once, and does not re-occur, and if lactation ceases gradually 2 to 3 months later, we can decide without the possibility of being deceived, that there is a new conception. After this time (2 to 3 months) the milk invariably dries up."

Alterations which are produced by the menopause, are as follows: improvement of the health in weakly women; development of catarrh of the stomach and bowels; obesity.

During her "period," a woman is always forbidden to bathe. Coitus and hard work are also forbidden. She fears taking cold very much, and calls it characteristically *shimokase* (wind from below.) In some provinces of the interior, especially in Hida, the women are very earnestly advised, during this time, to relinquish visiting the temple, and prayer to the gods, and to good spirits; in other provinces they are obliged to spend the time in their apartment, and not allowed to eat with their families. As soon as a woman finds that the flow has ceased, she takes a bath, puts on other clothing, and lays aside the T-bandage. The maiden early becomes acquainted with these rules by listening to the conversation of other women, young and old. Formerly the pernicious custom prevailed among

old female servants and aunts, of giving secretly to the daughters of distinguished families, in whose presence nothing had ever been said about *hatzubana* (first blood), books which contained an accurate description of menstruation, and at the same time obscene allusions. At the present time traffic in this kind of literary product is forbidden.

It was very interesting to me to find, upon translating many of the expressions for "menstruation," none which conveyed the idea that menstruation is an act of purification. The Japanese consequently regard this blood as in the highest degree unclean—perhaps the most unclean of the excretions—but not, that they are thereby cleansed. The commonest term is *gek-ke*, which signifies simply the monthly rule. *Mengori* or *megori*, the next most in use, and also a somewhat finer term, is, literally translated, a thing which moves in a circle, or one which regularly returns. *Akane son-ke*—a somewhat ordinary expression used in popular songs, and by wits, means "red-color; "geschim" means monthly messenger, or announcement, and "jakh" means simply, duty. The two last have fallen already somewhat in disuse.

[TO BE CONTINNED.]

Clinical Reports.

COOK COUNTY HOSPITAL.

(SERVICE OF THOMAS BEVAN, M. D.)

Cases Reported by J. H. WM. MEYER, House Physician.

Scarlatina and Suppurative Pleurisy.

Bridget O'C., aged 15, was admitted to the hospital, February 28th, 1877. A week before admission, patient took cold, followed by slight cough. Two days later, she experienced a feeling of general lassitude and weakness, nausea, vomiting and headache. Complained of a dull pain in her right side, and cough.

Four days ago, she became very feverish, pain and cough growing worse, but did not expectorate; the opposite side, also, became painful. At this time, a bright red, punctate eruption made its appearance on her chest.

On admission, patient fairly nourished; tongue coated whitish; bowels move daily; skin very hot, presenting a scarlet rash over the chest, abdomen and thighs; does not eat nor sleep well. Complains of pain in her side and loins. Has been menstruating for four days.

On examination, find diminished movement and dullness over the right chest, posteriorly as high as the spine of the scapula; feeble vesicular respiratory murmur; decreased vocal resonance and fremitus over the same region. Has incontinence of urine during the paroxysms of coughing. Quiniæ sulph., gr. iii. four times daily; spiritus frumenti, tablespoonful every four hours. Also, turpentine stupes to the chest.

March 3d. Bronchial breathing and dullness over the right lung posteriorly to the seventh rib; feeble vesicular murmur below this; broncho-vesicular breathing anteriorly above the fourth rib. Skin desquamating on right side; A. M., temperature, 103; pulse, 134; respiration, 44. P. M., pulse, 144; temperature, 105; respiratory, 40.

March 4th. Did not sleep well; physical signs unchanged. Expectorates a little white, frothy mucus. A. M., pulse, 124; temperature, 102½; respiration, 34. P. M., pulse, 150; temperature, 105; respiration, 42.

March 5th. Bronchial breathing heard posteriorly over right lung, from apex to lower angle of scapula; anteriorly broncho-vesicular breathing, with some large and small mucus rales. Breathing very difficult. A. M., pulse, 150; temperature, 102½; respiration, 52. P. M., pulse, 140; temperature, 102½; respiration, 40.

March 6th. Was delirious all night. A. M., pulse, 138; temperature, 98½; respiration, 36. P. M., pulse, 138; temperature, 102½; respiration, 40.

March 7th. Expectorates large quantities of tenacious yellow sputum. A. M., pulse, 140; temperature, 98; respiration, 44. P. M., pulse, 136; temperature, 100; respiration, 40.

March 8th. Find moist rales all over left lung. Urine still escapes during the paroxysms of coughing. A. M., pulse, 130; temperature, 103¾; respiration, 39. P. M., pulse, 150; temperature, 102½; respiration, 44.

March 9th. Expectorates excessively. Examination of sputum with microscope show it to be composed almost entirely of pus. Find amphoric resonance, breathing and voice over left scapular and interscapular region, A. M., pulse, 136; temperature, 99; respiration, 34. P. M., pulse, 134; temperature, 103½; respiration, 34. Some of the sputum was boiled with liq. potassæ; but no elastic tissue could be found.

March 11th. Died.

An examination was made ten hours after death. The right lung was much shortened, leaving a space bounded above by the lower lobe, below by the pleura, covering the diaphragm externally by a false membrane, which was firmly adhesive to the parietal layer of the pleura, within which space was contained at least a quart of purulent fluid. This fluid extended up as far as the pleural reflection at the root of the lung.

In the lower lobe of the right lung was a small cavity, which communicated externally with the pleural cavity, internally with a bronchiole. Both cavity and bronchiole contained purulent fluid. Over the lower lobe of the left lung, some adhesions to the diaphragm were found, with some fluid in the pleural sac. Parenchyma of right lung was compressed, and gave diminished crepitation, yet floated upon water. On section, found increased amount of mucus, with a little pus. The condition of the left lung was similar, except that there was less compression and no pus.

Phthisis and Empyema.

Claus Cl., native of Denmark, cabinet-maker, aged 33 years, was admitted, February 7th, 1877. There is no record of consumption in patient's family history. Has himself enjoyed good health until last May; at that time he took cold after drinking cold water on a very hot day. He contracted a

cough, from which he has never had entire relief; had pains in his chest. During the summer his health gradually failed, appetite being variable; bowels not regular; had scanty expectoration of white frothy mucus. During September he began to suffer from occasional night sweats, a tickling sensation in the throat, huskiness of voice, dyspnœa; sputum became yellowish in color. One night he awoke to find blood running from his mouth; thinks he lost half a pint at that time. Was in this hospital during last November, during which time his symptoms were much improved. On leaving, however, he took a fresh cold, and suffered a relapse to his former condition. On admission is somewhat emaciated; skin normal; face flushed; tongue large, coated white; appetite poor; bowels regular; urine of high color, and offensive odor; pulse, 120; respiration, 24; decubitus on left side; coughs constantly, expectorates a greenish yellow sputum; has dyspnœa and night sweats. On physical exploration, find loss of vocal fremitus over lower half of right chest.

On percussion, patient in recumbent position, find slight dullness just below right clavicle; then fair resonance as far as fifth rib, in front; dullness in axillary region, and posteriorly; patient lying on his breast, find resonance posteriorly; dullness in front almost to clavicle, fixed dullness anteriorly over left lung as far as fifth rib; fair resonance posteriorly. On auscultation, find low-pitched, blowing respiration, just below right clavicle; broncho-vesicular, below that; exaggerated high-pitched respiration on left side anteriorly. Behind find feeble respiratory murmur over lower half of right lung; exaggerated respiration with some broncho-vesicular breathing over left. Withdrew and examined a few drops of fluid from chest; find pus-corpuscles in abundance.

March 12th. Feet are slightly œdematous.

March 18th. Is expectorating purulent liquid at the rate of about an ounce per hour.

March 19th. Slept well; feels pain in right side; upon coughing notices a particularly offensive odor of the breath.

March 20th. Still expectorating purulent liquid profusely.

March 21st. Get well marked, amphoric breathing and voice, and succussion.

March 27th. Gradually failing. Still expectorates profusely.

March 29th. Died.

Post mortem ten hours after death. Found about a gallon of pus in right pleural sac. The pleural surfaces were very thickly covered by false membrane. The apex of right lung was firmly adherent to the chest; the other parts floated on the pus. The upper lobe of left lung was infiltrated by a deposit; the right apex contained several small cavities, one of which communicated with the pleural sac. All the other organs were normal.

Cancer of the Lung.

Charles L., native of Sweden, aged 30, a carpenter, was admitted February 10th, 1877.

In June, 1875, patient's left leg was amputated at the lower third, for cancer of the foot, in St. Joseph's Hospital.

Five weeks previous to admission he took cold; had a slight cough, but was not confined to his bed until three weeks later, when he complained of dizziness; pain in the left side of the chest; and cough; expectorating large quantities of white frothy sputum. A week ago he began to expectorate small quantities of blood.

On admission, poorly nourished; tongue coated whitish. The skin presents a peculiar sallow hue. Find a small tumor on the left leg, midway between the stump and knee; the mammae enlarged, hard, and indurated. The left side of the chest measures one half inch more than the right. Apex beat of the heart in the epigastric region. Examination of the chest reveals dullness on the left side as high as the inferior angle of the scapula; decreased vocal fremitus and respiratory murmur; also friction sound in the left inflammatory region.

February 20th. Dullness extends somewhat higher. Gradual enlargement of the tumor on the leg.

March 6. Expectorated about three ounces of bright red frothy blood this morning.

March 19. Has great dyspnœa; is compelled to sit up in bed; coughs constantly, expectorating white frothy sputum, occasionally streaked with blood. Tumor on the leg growing rapidly.

March 25. Amphoric respiration over the apex of the left lung.

March 28th. Died.

Autopsy twelve hours after death. Slight adhesions were found between pulmonary and costal pleuræ over the entire left lung. A few also on the right side.

The anterior border of the left lung extended about one and one-half inches to the right of the median line. The heart was displaced considerably to the right. As the root of the lung was severed, exit was given to a large quantity of brain-like matter, mixed with blood. The lung was almost twice as large as the normal organ. Disseminated through both lungs were masses of brain-like matter, varying from the size of a pea to that of an orange. These were especially numerous and large in the left lung. The mesenteric glands were enlarged, and mesenteric vessels congested. The rectum and greater part of descending color were considerably constricted in size. The tumor on the leg, involving the bone to some extent, was composed of this same brain-like matter.

Atheromatous Degeneration.

William A., American, carpenter, aged 64 years, was admitted to the hospital, March 7th, 1877.

As the patient was somewhat delirious, we could get no history, but learned from friends that four weeks previous to admission he was suddenly seized with dizziness; vertigo lasting about an hour; since then he has been lethargic, and at times delirious. On admission, well-nourished tongue moist and clean; appetite and sleep fair, bowels regular; surface normal; pulse feeble, 90 per minute. The radial artery is tortuous and moves under the finger as a hard cord.

March 18th. Hands and feet are very cold, head hot. Passes urine and fæces in bed; is still delirious.

March 22d. Patient gradually failed and died to-day.

An examination was made ten hours after death. In removing the calvarium, about three ounces of a yellowish white fluid escaped. The dura mater was greatly thickened and firmly adherent to the extent of about one inch on either side the median line of the calvarium. The pia mater was thickened and congested. The arteries at the base of the brain were in some portions sacculated, in others contracted, and contained numerous clots. Their walls were thickened, and at many points were found deposits of a hard whitish substance. The ventricles were enlarged and contained considerable fluid.

The arch of the aorta was greatly roughened by calcareous deposits, being most marked in the descending portion; in places small abscesses were found. The valves of the heart were normal. Coats of all the arteries examined in various parts of the body seemed to be thickened. The costal and pulmonary pleuræ of the right lung quite extensively adherent, and the lung in a state of senile pneumonia.

RUSH MEDICAL COLLEGE CLINIC.

SERVICE OF PROF. MOSES GUNN.

(Reported by EDMUND M. LANDIS. M. D.)

Hare Lip and Cleft Palate, with Operation for the Hare Lip.

Frederick W., German, aged 26, farmer, who is a robust young man, presents himself with a hare lip, and a completely fissured palate. The dental arches of the superior maxilla are even, and the teeth perfect and regular, up to the edges of the fissured bones, which approximate at the symphysis.

The hare lip has been operated upon, in Germany, unsuccessfully. Union after the operation, taking place only in the upper angle of the slit.

The ability of the patient to articulate, is illustrated by the following alphabetical score: a, b, —, —, e, f, g, —, i, j, —, l,

m, n, o, —, (says u for g), r, —, —, u, v, w, x, y, —. The dashes represent the sounds which he is unable to master. The German h–hah, can be made, but the h–haitch, as in English, cannot be accomplished.

This case presents a complete cleft, but is a favorable one for an operation. It is believed that it could be operated upon successfully, though it is not proposed to recommend it, as we have seen but in a single instance, any improvement in articulation as a result of the operation. The habits of speech, or the mode of pronunciation, which a patient who has attained the age of this young man has acquired, are difficult to overcome. The pliability of the velum as seen in health, which cannot be obtained by an operation, is the chief obstacle; it not acting like a freely pliant curtain, and going back over the posterior nares as it should.

If these cases could be operated upon in infancy, before the child had learned to talk, there would be more hope for the final acquisition of fair speech.

A remarkable case bearing upon this point, was that of a a young lady, who previous to the operation, tolerated the greatest freedom in the manipulation of the parts. The operation was a fine success. The parts became unusually pliable. The patient was a young lady of intelligence and ambition, exceedingly anxious to cultivate the voice, as she had a talent for music, and had already attained to a degree of proficiency, in voice and pronunciation, rarely met with in this class of patients.

The friends of the patient think that there has been improvement in the voice from the operation, but our observation of the case inclines us to think that there has been little or none.

Now, with a case so apparently favorable as was this, resulting in no improvement, the previous experience with this class of difficulties is borne out.

The patient has been advised not to attempt the operation for cleft palate, but to have the hare lip operated upon.

The patient was now anæsthetized, and an incision was made which commenced a few lines above the retreating angle of the

slit, and terminated by paring the edge of the lip on the left of the slit. A second incision was then made, commencing at the first one, near its origin, and terminating by cutting a flap in the lip on the right side of the slit.

After hemorrhage had ceased, the parts were nicely approximated, the flap in the right side of lip brought down, and used as a border for the lip, and the whole secured by several large and small waxed, silken sutures.

This restored symmetry to the lips, which, when the patient has grown a good moustache, will give a normal appearance to this part of his features.

Adhesive straps were applied to the wound, passing back as far as the ears, on either side, and holding in their grasp the folds of the cheeks, which are pressed towards the median line, thus removing extension from the wound.

The stitches will be removed in five or six days, the parts in the meantime to be kept as quiet as possible.

Typical Case of Cystic Degeneration of Inferior Maxilla.

Samuel M., English, aged 43 years, farmer. Fourteen years ago, the patient who is a well-nourished, robust man, received a blow on the side of the jaw, from a horses' head, after which a small "gum boil," as he expressed it, commenced growing. It is painless.

On examination, find a globular, elastic tumor projecting upon the cheek and into the mouth, which is connected with the lower jaw. The neighboring glands are not affected.

An exploring needle has been used before bringing the patient to the clinic and, "cystic disease of the jaw" diagnosed. Whether it originated in a tooth cyst, or at the bottom of the alveolar process, cannot be said. It is proposed to remove the walls of the cyst proper, and all degenerated tissue connected with it, leaving the base of the jaw intact, thus avoiding a more radical operation and preserving the integrity of the jaw.

The patient being anæsthetized, the teeth involved in the diseased portion were extracted, and the knife and bone-gnaw-

ing forceps used, to remove all the degenerated mass. The base of the jaw was left intact, and its firm outline could be felt by the fingers, after the removal of the diseased structure.

The cyst proved to be binocular and communicating, having a ridge of bone between the two portions.

Boracic acid dressings were ordered.

PRIVATE SURGICAL PRACTICE.

Under the care of JOHN E. OWENS, M. D., Chicago.

Internal Hæmorrhoids; Operations by Clamp and Actual Cautery.

CASE 8. Mr. ——, about 50 years of age, came under my care in 1873. I had, at that time, never encountered a case where, in consequence of internal hæmorrhoids, the patient's life was in such danger. I am, at this time, unable to find my notes of the case, but the leading features I well remember. Having suffered for years, the usual symptoms, namely, protrusion, strangulation, inflammation, pain and hemorrhage, the patient had become exhausted to death's door. The prominent symptom was hemorrhage. Defecation became very inconvenient in the morning, in consequence of the loss of blood on such occasions, and its attending exhaustion. This matter was therefore postponed till evening, when injections accomplished what nature, unaided, might have done, at the proper time, in the morning. After a little experience, he soon found out that his strength was best conserved by going immediately to bed, and thus by the morning he had rallied sufficiently to ride down town, to his place of business. He did but little more, however, than sit in the office and give orders. In this way the patient dragged out a most miserable existence. The eyes and skin were of a greenish color, in consequence of which it was thought by many that the patient was laboring under some obscure disease of the liver, and for

this he was treated at mineral springs and elsewhere. Prof. J. Adams Allen, his family physician, finally convinced him that hepatic disease did not exist. Suffice it to say that when I called, by appointment to operate, the patient was in a very critical condition. He was prostrate on his bed, with œdematous legs, feet and face, oppressed breathing, and very small frequent pulse. Dr. Allen feared the existence of pulmonary œdema. Of course the operation was postponed. Under rest and medical treatment he soon improved, and the pulse and respiration being good, I operated with clamp and actual cautery, June 1, 1873. Only two or three hæmorrhoidal tumors were found. The patient recovered without an untoward symptom, and became a useful man. I ceased surgical care of the patient, June 18. He is, at this date, March 21, 1877, in the enjoyment of health.

Case 9. Mr. C., aged 49 years, a carpenter, suffered in consequence of internal piles for twenty years. They bled more or less during the ten years previous to the operation, and having commonly protruded at stool, voluntarily returned with one exception when they became strangulated, and were replaced by his family physician, Prof. DeLaskie Miller. The hemorrhage frequently continued twenty minutes. Whilst at work the blood often saturated his clothing, and ran down into his shoes. In May, 1874, I operated with clamp and actual cautery. The patient made a good recovery, and was in the enjoyment of health, March 16, 1877.

Case 10. A lady, aged 59 years, from Ottawa, in this State, had internal hæmorrhoids for twenty-four years. Two of the tumors were uncommonly large. A "perineal" pile was, as is usual, particularly troublesome. Menstruation ceased twelve years ago. I operated with clamp and actual cautery, August 25, 1875. Suppression of urine immediately followed, and continued without inconvenience for 36 hours. Fomentation and sweet spirits of nitre were ordered. The urine remained scanty and high colored for two days; its passage was attended with considerable pain.

August 28th. Moderate protrusion of swollen mucous

membrane; no pain in rectum. To this date a sufficient quantity of opium had been taken to ensure constipation.

August 30th. Confection of senna having failed to move the bowels, the following pill was ordered to be taken at bed-time: Podophyllin, ext. nucis vom.; ext. Belladonna, aa gr. ¼; ext. colocynth. comp. grs. j.

September 14th. Patient has been going to the table for three or four days, and is now able to go out. She remains quite well to this date, April 14, 1877.

Case 11. Rev. M., aged 41 years. This patient was referred to me for operation by his family physician, and gave the following history:

About twenty-one years ago the patient suffered from dyspepsia, induced, doubtless, by sedentary habits. He strained too much at stool, and almost daily during this period of twenty-one years, he was annoyed by a protrusion of internal piles. For twenty years, bleeding from the rectum was more or less frequent. Any intercurrent ill, like sore throat, "cold" in the head, etc., was sure to be accompanied by a rectal hemorrhage. Remaining long at stool caused a hemorrhage. By keeping the bowels in a lax condition, by rising promptly from stool, and putting the piles back, hemorrhage was, for the most part, prevented. Bleeding ceased when he assumed the recumbent position. He seldom lost four ounces of blood—two or three times a year—perhaps as much. This gentleman is very active and energetic, accomplishes an immense amount of work, has traveled around the world, and over our own country. He began to preach in 1858. The rule was, that after preaching he was obliged to hasten home, in order to replace the piles that had protruded whilst he was in the pulpit, and, grasped by the sphincter, caused an agony, which seemed, at times, unbearable. Often on his way home he was obliged to stop and support himself as best he could. They bled only at stool. When inflamed he was compelled to remain in bed for three or four days.

Oct. 9th, 1875. Assisted by Dr. C. M. Chamberlain, who is the gentleman's medical attendant, and Drs. Guerin and Simons, I operated with clamp and actual cautery. The sphincter was not over-distended.

Oct. 13th. Increase in the soreness and in the protrusion of the swollen mucous membrane—an unusual occurrence, since swellings and soreness do not increase after the third or fourth day, unless from some indiscretion on the part of the patient. The patient acknowledged, however, that the previous evening being unable to pass water, he got up and strained. Injection of warm castor oil at 10 o'clock, A. M., and in an hour afterwards an ounce of oil by the mouth. Patient is now as he always is, very nervous and fidgety. Cold applications were used locally. Opium was used to allay pain caused by a spasmodic contraction of the sphincter, and to keep the patient still.

Oct. 17th. Bowels acted several times in response to the oil, and operations were attended with some pain. Patient went down stairs just two weeks from the day of the operation.

Oct. 28th. Patient has been out daily since October 23d, and to-day made seven or eight calls.

March 15th, 1877. Patient is perfectly well at this date.

Remarks.—In a certain proportion of cases, suppression of urine without inconvenience to the patient, occurs. Retention of urine usually yields to hot applications, the use of the catheter being seldom required. Opium, perhaps, plays a certain part in the causation of the former, and yet in case 10 it was given very sparingly indeed. Brisk purgation is both unnecessary and hurtful. One or two operations on the third or fourth day, induced by the mildest means, are quite sufficient. Injections of warm castor oil, once or twice daily, using the first one, thirty-six hours before it is intended the bowels shall move, will in a proportion of cases be all sufficient. In all cases, whether an additional laxative is required or not, the oil injections add comfort to defecation. I have only on one occasion operated with the clamp and actual cautery, without the employment of an anæsthetic. The most painful part of the operation is the closing of the clamp on the pedicle. The application of the cautery was not complained of in the case referred to. The sphincter should always be over-distended, as the first step in the operation. This precaution having been observed as a rule, there will be but little complaint of

subsequent pain. Three indications present themselves, namely, to lock up the bowels as long as may be necessary, to ensure quietude of the patient, to annul pain. To meet these, I give the preference to powdered opium. Cold water bathing for several weeks after the patient is able to get up should be recommended, and unless instructed, patients commonly do this in the most inefficient manner. If the patient will place a basin of cold water on the *floor* (not on a stool) and stoop down over it, bringing the anus as close to the water as may be, it will be found that the anus opens and the very lowest part of the rectum comes to a certain extent into view. The bathing is then best accomplished with the hand.

Formerly I *pulled* the piles down as is recommended in the books, and thus secured them one by one in the clamp. This method is objectionable. When traction is made upon the tumor the pedicle is elongated at the expense of the normal mucous membrane. The latter is thus drawn into the clamp. As soon, however, as the traction is relieved by the removal of the clamp, the margins of the wound are not only drawn more or less widely apart by the resiliency of the rectal walls, but the wounded surface is likely to bleed. The sphincter having been over-distended, the hæmorrhoidal tumors which come at once into view, should be, one by one, secured in the clamp at the pedicle before any traction whatever has been exerted upon them.

Correspondence.

A VISIT TO THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

EDITOR CHICAGO MEDICAL JOURNAL AND EXAMINER:

Thinking the readers of the JOURNAL AND EXAMINER might chance to feel an interest in the condition of medical matters in the State of Alabama, as reflected through the constituted exponent of the profession—the Medical Association—I have taken a few pencil notes, which I offer for their acceptance.

This association was organized in the year 1840. With the exception of a few years when the chaos of social and business avocations incident to our late war, diverted the minds of men throughout the country from such pursuits, the annual meetings of the body have been held with regularity. As is usual with State societies, this of Alabama is migratory in its character, being carried in successive years from place to place amongst the larger towns of the State.

In its constituent membership it comprises a goodly number of names of men whose attainments and labors are matter of just pride, not only to Alabama, but to the South; names which do no discredit to the profession of the whole country. Were it not invidious to do so, I might mention a number of these names which would probably be familiar to the minds of your readers.

For several years past, the association has published an annual volume of transactions of creditable size, and of merit sufficient to draw forth the approval and warm commendation of leading medical journals all over the land. In this respect, at least, it may safely be said that no similar medical body in the South has surpassed it.

The association comprises in its membership all of the individual members of every county society in the State, who are privileged to attend the meetings and participate in its

scientific proceedings and discussions, but not in its ethical and business management. It is a representative body, and receives annually two delegates from each county society who compose the House of Delegates for the year, and who are entitled to vote upon matters of business which may be brought before the association. The House of Councilors consists of delegates usually, and sometimes other meritorious members, who may be elected by the house, to a number which shall not exceed one hundred in all; who are elected for life unless removed for cause, *e. g.*, non-payment of dues ($10 annually), absence from three consecutive sessions of the body, etc. The House of Councilors has especial charge of questions of ethics, and the general business policy of the association, and its members are alone eligible to hold office in the association. From the councilors is selected annually one member of the "Board of Censors," with a five year's tenure of office, and the five members constituting a medical court vested with absolute powers like those of the Judicial Council of the American Medical Association.

This association is constituted by law the State Board of Health, and a committee of the councilors, called the "Board of Health," is charged with this especial duty. The tenure of this office, like that of censor, is for five years, one new member being elected annually. At the present session the Board of Censors and the Board of Health have been consolidated into one body, charged in common with the duties of both, and bearing the name of censors. The machinery of the Health Board is not yet in full operation, but its foundations are being deeply and securely laid, and promise rich fruit in the near future.

At the last session of the State Legislature a law was enacted to regulate the practice of medicine and surgery in the State, and the State Medical Association was charged with its execution. Under this law, those who offer for practice of regular medicine in the future, are to be examined upon all of the branches, whilst irregulars are to be subjected to examination only in anatomy, physiology, chemistry, surgery, and obstetrics. These examinations are to be made of all ap-

plicants, whether graduates or not. Those candidates who have diplomas are examined by the Boards of their several counties, whilst all who are without diplomas must appear before the Board of Censors of the State Association, which is constituted the State Board of Medical Examiners. It is required that all who are now practicing in the State shall appear before their county Boards and take out certificates of registration without examination. These certifieates are to be recorded in the office of the Probate Court, and the record renewed when the residence is changed from one county to another.

At the present session of the association the attendance is smaller than usual, on account of a recent flood in the water courses obstructing travel. A number of valuable papers were read, but the scientific features of the proceedings were hardly so sumptuous as last year. A marked feature of this body is the regular attendance of members from different parts of the State, year after year, evidencing the interest in its welfare, which is felt, and a readiness to make some sacrifices in order to be present at its meetings. The average intellectual capacity of the members, and their professional attainments, strike a visitor as being highly creditable; this is probably due to the fact that the meetings are filled up by earnest men from all quarters of the State, rather than by local practitioners, who attend because of the close proximity of the meeting to their places of residence.

ROBERT BATTY, M. D.

ROME, GA., April, 1877.

THE LATE DR. FREER.

TO THE EDITOR OF THE JOURNAL AND EXAMINER:

Dear Sir:—Among all the high eulogies so deservedly bestowed upon the late Dr. Freer, the writer finds no mention of a certain phase of his character which is deserving the highest praise, viz., the honorable position he took in regard to medical women. He was not only gentlemanly toward them

but just, seeming to regard them in every respect as his peers.

It is hoped you will pardon the writer as she gives a personal experience in regard to this point, for outside of the faculty of the Woman's College she has found no such friend in the profession as Dr. Freer. The first time she ever saw him he extended to her the unprecedented courtesy of inviting her to a place beside him at the operating table during his surgical clinic. Just then, entering upon a new and untried field, she expressed to him the hesitancy and dread with which she undertook the work—the teaching of physiology, his own branch, and asked him for advice. He replied: "You do not need advice, you will be sure to succeed, and your first course of lectures will be your best. I think mine was, because I worked the hardest over it." He then offered her the use of any material at his disposal, and said he would be glad to give any assistance in his power. A year since, he transferred to her his appointment as a delegate from the State Medical Society to the American Medical Association—the result of which you well know—and the kind letter he wrote on that ocasion is preserved as a precious memorial. The last time the writer ever saw him was at the opening (or dedication) of Rush College. While conversing with him at the close of the exercises, she spoke of the future of the Woman's College, and remarked that the great disparagement between his college with its magnificent new building, and ours with no building at all, was enough to discourage one. He replied: "Not at all. You must never abandon that college; sooner or later it is bound to be a success. If you give it up, it is only to give it into the hands of others; a woman's college in Chicago is a fixed fact, and I am determined that Rush College shall befriend you in every way possible." Such a sentiment from such a man is most worthy of record. May the successor of this great man be as noble and as just.

SARAH HACKETT STEVENSON, M. D.

Prof. of Physiology Woman's Hosp. Med. College.

ST. CAROLINE'S COURT, April 18, 1877.

A VERY USEFUL NASAL IRRIGATOR.

EDITOR JOURNAL AND EXAMINER:

Experience seems to have demonstrated that the nasal douche—while with proper care very useful in its way—in the hands of most patients and many practitioners, is a dangerous instrument, on account of the tendency of its use to cause congestion and inflammation of the middle ear. It is desirable to have some means of thoroughly irrigating the nasal passages in cases of catarrh and ozena, without the danger referred to. Different forms of syringe have been used with more or less success.

The curved syringe for injecting fluid forward from the posterior nares, is in some hands very successful; but fluid thrown back through the anterior nares sometimes strikes against the mouths of the eustachian tubes, and proves as mischievous as when coming through the douche under considerable pressure.

The little instrument figured below—and which has been made for me by Messrs. Sharp & Smith—has been contrived for the purpose of a nasal irrigator, and is believed to be free from the slightest danger of injuring the ear, while it has the advantage of being much easier of use than any syringe, and much more effectual. It consists of nothing but a rubber bulb, a short rubber tube and a metallic tube perforated on one side near its extremity, as shown in the cut.

The mode of using it is easily understood from its construction. The metallic tube is passed two inches or more into the nasal fossa, exactly as in passing a eustachian catheter, the perforations directed upward, when the bulb, previously filled with the irrigating fluid is forcibly compressed, and the fluid is projected against the roof of the fossa, exactly where irrigation is needed. The manipulation is repeated until a sufficient

effect is accomplished. Patients are easily taught to use it. The metallic tube may be attached to an ordinary syringe bulb and a continuous stream of water ensured.

Of course there is no new principle employed in the construction of the instrument, and it may have been made and used in this form by others independently, but the combination here presented has worked so well and is so simple and cheap that it has seemed to merit the present brief notice.

Chicago, March 24th, 1877. NORMAN BRIDGE.

AMERICAN MEDICAL ASSOCIATION.

PHILADELPHIA, 1400 PINE St., S. W. Cor. Broad.

The Twenty-eighth Annual Session will be held in the city of Chicago, Ill., on Tuesday, June 5, 1877, in Farwell Hall, at 11, A. M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and and District Medical Societies as are recognized by *representation in their respective State Societies*, and from the Medical Department of the Army and Navy of the United States."

"Each State, County, and District Medical Society entitled to representation, shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, territory, county, city, or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

Secretaries of Medical Societies as above designated are earnestly requested to forward, *at once*, lists of their delegates. Will you kindly send to the undersigned a list of your members with their residences, in order that a correct record may be made of all who are in affiliation with this body?

SECTIONS.

"The Chairmen of the several sections shall prepare and read in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections. * * * *"—By-Laws, Art. II., Sec. 4.

Practice of Medicine, Materia Medica, and Physiology: Dr. P. G. Robinson, St. Louis, Mo., Chairman; Dr. B. A. Vaughan, Columbus, Miss., Secretary.

Committee appointed to report to this Section—on Clinical Observations: Dr. N. S. Davis, Ill., Chairman; Dr. H. A. Johnson, Ill.; Dr. J. B. Johnson, Mo.

Obstetrics and Diseases of Women and Children: Dr. James P. White, Buffalo, N. Y., Chairman; Dr. Robert Battey, Atlanta, Ga., Secretary.

Surgery and Anatomy: Dr. ———, Chairman; Dr. Moses Gunn, Chicago, Ill., Secretary.

Medical Jurisprudence, Chemistry, and Psychology: Dr. Eugene Grissom, Raleigh, N. C., Chairman; Dr. E. A. Hildreth, Wheeling, W. Va., Secretary.

State Medicine and Public Hygiene: Dr. Ezra M. Hunt, Metuchen, N. J., Chairman; Dr. D. R. Wallace, Waco, Texas, Secretary.

"Papers appropriate to the several Sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate Section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of his Section, to determine the time and order of their presentation, and give due notice of the same. * * * *"—By-Laws, Art. II., Sec. 5.

The following Committees are expected to report:

On Influence of Climate on Pulmonary Diseases in Florida: Dr. E. T. Sabal, Fla., Chairman.

On Animal Vaccination: Dr. Henry A. Martin, Mass., Chairman.

On the Inheritance of Syphilis: Dr. J. W. Thompson, Ky., Chairman.

On Prize Essays: Dr. N. S. Davis, Ill., Chairman.

On Necrology: Dr. S. C. Chew, Md., Chairman.

On Catalogue of National Library: Dr. H. C. Wood, Pa., Chairman.

WM. B. ATKINSON,
Permanent Secretary.

Reviews and Book Notices.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By *Roberts Bartholow, A. M., M. D.*, Professor of the Theory and Practice of Medicine, and of Clinical Medicine, and formerly Professor of Materia Medica and Therapeutics, in the Medical College of Ohio, etc., etc. New York: *D. Appleton & Co.* 1876. pp. 537.

In his preface, as reasons for presenting to the profession a new work on Materia Medica and Therapeutics, Prof. Bartholow claims as follows:

1. A simpler classification.
2. A consideration of several new remedies, not generally referred to in works of like character.
3. A condensed treatment of individual remedies.
4. A condensed description of physiological actions, most consonant with known facts.

These are reasons good and true, apart from the arrogation of "twenty-two years of clinical experience," and "many independent investigations" contributing "some original knowledge to the subject of Therapeutics."

Let us, by examination, see how far his work sustains his claims.

I. A simpler classification.

Prof. Bartholow's classification is as follows:

Part 1. Modes in which medicines are introduced into the organism.

Part 2. The actions and uses of Remedial Agents.

Those used to promote constructive metamorphosis.
Those used to promote destructive metamorphosis.
Those used to modify the functions of the nervous system.
Those used to cause some evacuation from the body.
Part 3. Topical remedies.
This is simple enough, most certainly.

Under *Part* 1 are included, applications through the *external integument;* the *internal integument*, viz., the broncho-pulmonary, gastro-intestinal, and genito-urinary mucous membranes; the *subcutaneous areolar tissue;* and the *veins.*

In *Part* 2, under *Remedies used to promote constructive metamorphosis*, are Aliments, Water and Hydrotherapy, Pepsin and Lactic Acid, Mineral Acids, Oils and Fats, Mineral Tonics, and Vegetable Bitters, with their Alkaloids.

Under *Remedies used to promote destructive metamorphosis*, are Alkalies, Ammonium and its preparations, Alteratives, (so-called) Metals (as Lead, Copper, etc.), Tannic Acid, and vegetable astringents.

Under *Remedies used to modify the functions of the nervous system*, are Excito Motors, Cerebral Excitants, Cerebral Sedatives, and Motor Depressants.

Under *Evacuants* are Emetics, Cathartics, Anthelmintics, and Urino-Genitals.

Part 3 contains Antiseptics, Counter Irritants, Epispastics, Blood-letting, Escharotics, Emollients, Demulcents, and Protective Agents.

Between the cumbersome classification of Prof. George B. Wood, and the no classification at all of Dr. Sidney Ringer, Prof. Bartholow most certainly strikes a very happy medium. Though one may question the propriety of placing tannin among agents producing waste, and blood-letting among topical remedies, still any classification must be deficient, with our limited knowledge of the physiological actions of many remedies. The supposition is rational, that the simplest classification must therefore embody the least error.

II. A consideration of new remedies, not generally referred to.

If, by new remedies, Prof. Bartholow refers to agents recently introduced, and now undergoing the test of clinical usage, he may be credited with good articles on Apomorphia, Eucalyptus, Jaborandi, Croton Chloral, Salicylic Acid, and Salicin.

If, however, his reference is to agents not found in other recent works on Therapeutics, his claim is invalid, since both Sidney Ringer and H. C. Wood write fully on the above agents, and certain Botanic remedies, such as Hamamelis, Sabbatia, Alnus Serratula, and others are found in the lists of other schools.

His book, however, contains articles on several subjects not usually treated of in works on Therapeutics; viz., An elaborate article on Alimentation, considering foods, animal and vegetable, special plans of diet and alimentation in disease; a full list of Chalybeates, Saline, Alkaline, and Sulphurous Mineral Waters; a clear and concise article on the kinds and uses of Electricity; excellent directions for and against the use of Anesthetics; and good but brief articles on the combined use of Morphia and Atropia, and the theory of counter irritation.

III. A condensed treatment of individual agents. This claim is most fully substantiated.

The method of treatment is excellent, and as follows:

1. The Drug with English, French, and German synonyms.
2. Its various preparations with doses.
3. Antagonists and Incompatables.
4. Synergists; viz., Remedies which assist its action.
5. Physiological Actions.
6. Therapy.
7. Authorities referred to.

Each article also is wonderfully condensed and simplified by excluding all botanical, chemical, and pharmaceutical details, except so far as to explain compound preparations or incompatability. This seems to us proper and advantageous. There is no more reason why such details should enter a work devoted mainly to therapeutics, than that descriptive anatomy should be bound up with a work on surgery. Among "various

preparations" are included all popular or valuable ones that are unofficinal, with frequent directions for their combination. The lists of synergists are also valuable and instructive. The sections on physiological actions are brief, and to the point; while those on therapy include all established uses of the several remedies, whether suggested by physiological actions or obtained from long clinical experience. Scattered throughout each section on therapy are many formulæ drawn from his own experience, or that of men eminent in the profession. An excellent feature of this method is the placing of authorities quoted, in a list at the end of each article, rather than in foot notes, or in brackets on the pages.

IV. The fourth claim; viz., a condensed description of physiological actions, most consonant with known facts, is equally well maintained.

Whoever has read the recent able and scientific work on Therapeutics, by Prof. H. C. Wood, must, at times, have been thoroughly confused by the conflicting physiological actions assigned by eminent authorities, to the same remedy. This has been avoided by Prof. Bartholow. Where physiological actions are well established, they are briefly given. Where there is uncertainty, the doubt is stated, and the best authenticated actions are given as the probable ones. Much confusion and needless discussion is thus avoided.

If there is a weak element in the work under discussion, it lies in the empirical basis of much of the therapy. To use Prof. Bartholow's words; "Although convinced that the most certain acquisitions to therapeutical knowledge must come through the physiological method, I am equally clear that well established empirical facts should not be omitted, even if they are not explicable by any of the known physiological properties of the remedies under discussion."

This expressed intention has been fully carried out in his work, and detracts from its scientific character. While excuse may be found in the fact that extended physiological experiment is daily establishing many clinical experiences, still it is equally true that a popular empirical fact of to-day may become a fiction to-morrow. A graver objection, however,

rests in the license it gives the author to state personal theories and beliefs. It is creditable to Prof. Bartholow that he has availed himself so little of the opportunity.

To sum up—Prof. Bartholow has given to the profession a valuable work on Therapeutics—and one bound to be popular. Its excellencies consist in a very simple yet sufficient classification—the exclusion of all unnecessary details—a clear, concise, readable style—a most excellent method of treating individual subjects—and a practical therapy. As the "learned and encyclopædic volumes" of Stillé are best suited for reference, and the scientific work of H. C. Wood is the best exponent of the physiological research of the day, so is the practical book of Bartholow the best hand-book for the medical student and busy practitioner. J. S. K.

TEXT-BOOK OF HUMAN PHYSIOLOGY—DESIGNED FOR THE USE OF PRACTITIONERS AND STUDENTS OF MEDICINE. By *Austin Flint, Jr., M. D. D. Appleton & Co.*, 1876.

This book is of too high an order to be written upon after a mere cursory examination. This is our only apology for so late a review.

The opening chapter is devoted to the consideration of the blood, seemingly in accordance with that old theory, "the blood is the life," which becomes more and more true in the light of modern science. The exposition is worthy of the subject; we can take time for the disputed questions only. The first we notice is in regard to the existence of a nucleus in the red corpuscle, which the author denies, but which we believe is acknowledged by some very good authorities—though we ourselves have always considered the so-called nucleus simply an optical effect. There seems, however, to be sufficient reason to consider the question as still an open one.

The next point is in reference to the development of the corpuscle, and the radical view the author takes of this is in great contrast to the conservative views which he takes of certain other subjects. The theory of the development of the red from the white corpuscles, is unequivocally denied. "They

appear by genesis in the sanguineous blastema," is the author's language. As to the leucocytes, the experiments of Onimus are cited to prove that the "corpuscles may be developed under *favorable circumstances* in a perfectly clear homogenous blastema." The italics are our own, for it is upon these "favorable circumstances" that the whole question hinges. What are they? First, the liquid was placed under the skin of a *living* animal. If the corpuscles are developed in the blastema, de novo, why not secure for it, the blastema, the same temperature and the same osmotic action, both purely mechanical, entirely *away from* a living animal. We must confess this getting so close to a living animal, looks very suspicious on the part of "spontaneous generation."

Second, when *too thick* an animal membrane was used, or when the same blastema was envoloped in a sac of caoutchouc or in a glass tube hermetically sealed, there was no development of leucocytes. "From this it was concluded that osmotic action is a necessary condition, and that the mere heat of the body is not sufficient to develop these corpuscles, even in an appropriate blastema." Our version would be this; from this it was concluded that the membrane must be sufficiently porous to admit either cells or the germs of cells, which abound in the connective tissue and lymphatics just beneath the skin of any living animal, that possesses a skin. In order to be conclusive, the conditions of the experiment should preclude the possibility of the entrance of germs, but we observe that whenever such possibilities were precluded, no cells were formed.

The theories in regard to the constitution of the blood plasma are fairly discussed; that of Denis is the one adopted, and is altogether the most plausible; viz., that the blood liquor is composed of plasmine and serine. The decomposition of plasmine results in coagulable fibrin and dissolved fibrin or metalbumen. This does away with the necessity of admitting the existence of paraglobulin (fibrinoplasm) and a ferment —fibrinogen, as proposed by Schmidt and adopted by Virchow and others. The other constituent serine is simply osmotic albumen, probably corresponds to albumenose, a diffusible albumen.

The chapter on the heart is most excellent. The diagrams are especially fine—from Bomany and Beace. The influence of respiration on the action of the heart, is not explained as fully as might be. The fact that during expiration the internal pressure is greater than the external, whereby the pressure upon the heart and its great vessels is correspondingly increased, is not even suggested.

The cause of arrested circulation in asphyxia is said to be mechanical; "unaerated blood cannot circulate in the systemic capillaries." We believe it has been demonstrated by direct experiment, that black blood circulates as well as red—the cause of the stasis is not in the action of the venous blood upon the vessels or heart directly, but indirectly through the nerve centres, whose function is arrested by this venous blood. This is the theory of Bichat, and is certainly the most reasonable. As to the cause of the rythmical contraction, the author very truly calls it an inherent property of the muscular fibre. The function of the nerve of Cyon and the co-operation of the splanchnic with that nerve are very lucidly explained.

In the causes of respiration, the very cause of causes—inequality of pressure—is not mentioned, whereas the whole mechanical apparatus of respiration, is subservient to the production of this inequality.

The chapter on alimentation is full, and we are glad to see that the author takes no equivocal position on the alcohol question. "Under ordinary conditions, where the organism can be adequately supplied with food, alcohol is undoubtedly injurious. * * * The effects of its continued use, conjoined with insufficient nourishment, show that it cannot take the place of assimilable matter." While Dr. Hayes' testimony cannot be disputed that "strong, able-bodied men have become utterly incapable of resisting cold in consequence of the long-continued use of alcoholic drinks."

The subject of digestion is amply considered, the author deciding that it is lactic and not hydrochloric acid that is found in the gastric juice. In the syllabus of this chapter we find this heading: "Action of the gastric juice upon the coats of the stomach," but we find nothing on this subject in the text.

The physiological anatomy of the small intestine, is especially

commendable. The drawings are from Sappey, and need no recommendation other than the name of that master anatomist. The villi and the patches of Peyer are as nearly as possible the actual objects themselves. We find no function assigned the patches, though for some years, many of the German physiologists and histologists have classified them as a part of the great lymphatic system. This whole question of ductless glands or lymphoid organs, as Frey terms them, marks one of the conservative positions of the author. Apropos of this we find further along that the vermiform appendix has no function. (?)

The action of the pancreatic juice on fats, the author, in accordance with the best authority, considers as mechanical, not chemical. It is demonstrated by Hoppe-Seyler and others, that pancreatine is composed of three separate ferments, acting respectively on the three kinds of food; and that the spleen directly influences the ferment that acts upon the albuminoids—facts not stated by Prof. Flint.

On the function of the bile, the author says this fluid has nothing to do directly with the digestion of any of the alimentary principles. Thus all the old theories are demolished, but no new one established, unless we accept that of Küss and his school, viz., that the bile renovates the mucous membrane, especially the epithelial element, which is the active agent in the absorption of fats. This theory is certainly worthy of consideration, though it is not mentioned by the author.

The most important subject in the chapter on the larger intestine is that of stercorine, or transformed cholesterine; and we may say here that the chapter on cholesterine is one of the most instructive in the whole book. Prof. Flint deserves great credit for his investigations of this subject, not only on account of its physiology, but its pathology, for he has demonstrated that the blood poisoning which follows serious structural disease of the liver, is due to this retained excretion,—cholesterine,—and has named the disease cholesteraemia.

Absorption is well discussed, especially that of the lymphatic system, though the author agrees with Sappey in disagreeing with Recklinghausen and his school, as to the origin of the

lymphatics in the connective tissue by means of canaliculi or lacunæ. The attempted explanation of the absorption of fats by means of stomata in the coats of the vessels, is, it seems to us, entirely inadequate when applied to the absorption of the small intestine, for before the fat enters the vessels it enters the epithelial cells of the villi—they are found filled with fat granules during digestion. While it is probable there are stomata in the coats of vessels, it is hardly probable they exist in the walls of these cells, unless they exist as the "pore-canals" discovered by Funke and Koelliker many years ago.

The author denies the formative action of the lymphatic glands in the production of leucocytes, but it is easy to see that he is obliged to do this in order to sustain his theory of the blastema formation. As regards the application of physical laws to the function of absorption, it is of no avail as applied to the absorption of fats, and we can but agree with Longet and others, that osmosis loses its force in the presence of living elements. Indeed, the whole phenomena of secretion can be accounted for in no other way save to say that the cell has inherent power to take what it wants.

The presence of urea in the lymph in greater quantity than in the blood, demonstrated by Bernard, is very suggestive of the function of the lymphatics.

The distinction between a secretion and an excretion, made first, we believe, by Simon, is well maintained by the author, viz., "that a secretion is never discharged from the body; it has a function to perform, and it is never found in the body after the peculiar gland cells that form it are destroyed," while an excretion is just the opposite. The secretion of milk seems to be an anomaly in the mechanism of secretions, for milk, instead of being the product of glandular cells, seems to be the product of an amorphous membrane, but we venture a prophesy that this is only a seeming.

While the anatomy of the kidney is accurately given, the results of that anatomy are not followed out; indeed, the fact of increased blood pressure in the glomeruli, is mentioned only incidentally, whereas it is the great factor in the mechanism of renal excretion.

One of the most instructive divisions of this subject of the kidney, is that which treats of the influence of muscular exercise upon the composition of the urine. This embraces the substance of the author's well-known observations in the case of the pedestrian Weston, in which he found the amount of urea increased daily 15 per cent. above the average. Directly the opposite result was obtained some ten years ago by Fick and Wislicenius, but as the observation extended over one day only, the result cannot be considered reliable. As to the influence of mental exertion the author considers that no one more than another of the solid matters is increased, though many authors claim an increase of the phosphates.

The chapter on the liver is perhaps the most thoroughly scientific part of the whole book, containing much of original investigation. The double function is well demonstrated, but not so the double structure maintained by many histologists. The experiments in regard to cholesterine and glycogen, and the deductions drawn therefrom bear the stamp of true scientific spirit, and we may say here that the author's manner of summing up deductions, and his pertinent questions by which he keeps constantly before the mind just what he is searching for, makes the book of invaluable benefit to the student. While it imparts information, it imparts it in a disciplined, methodical manner.

Altogether, it is the most perfect text-book on the subject of physiology we have found in the English tongue.

S. H. S.

On Addison's Disease: Being the Croonian Lectures for 1875, delivered before the Royal College of Physicians. Revised and illustrated by plates and reports of cases. By *Edward Headlam Greenhow, M. D., F. R. S.*, etc. Philadelphia: Lindsay & Blackston. Octavo. pp. 212.

This book comprises three lectures, and, in an appendix, detailed reports of 37 cases, which in their histories support the views of the author, while in another appendix are arranged, in groups for the most useful study, 333 cases, which the author has collected as bearing upon the subject of Addison's disease.

The first lecture is devoted mainly to a careful description of Addison's disease, "together with the true characters of the pathological lesions, in and around the supra-renal capsules," found to exist in this affection. One of these lesions consists in the infiltration of the capsules by "an inflammatory exudation of a low type, which destroys the natural structure of the organs, and finally itself undergoes caseous degeneration." There is clear evidence of inflammation in the cellular envelope of the capsules, from which arise adhesions of these masses to adjacent structures, and hypertrophy of the fibrous investment of the nerves, giving the appearance of a thickening of the latter, when really their structure is not changed.

In the second lecture the author has endeavored to show "the concurrent testimony of facts in proof of the real connection subsisting between the clinical symptoms of Addison's disease and the one specific lesion in the supra-renal capsules;" and "the baseless nature of the misconceptions which have prevented the general recognition of its reality."

In the third lecture, an explanation of the etiological and pathological processes of the disease is attempted. Dr. G. believes the great increase of connective tissue in and around the capsules, compressing not only the nerves of these structures, but influencing if not seriously injuring the solar plexus and semi-lunar ganglia in the neighborhood, to be the true key to the explanation of all the symptoms. The mere destruction of the capsules and the abolition of their functions, he is sure cannot account for the phenomena.

These lectures are a scholarly and searching review and presentation of the subject. The value of the book is very greatly enhanced by the two appendices, and by the five elegant plates that illustrate the text.

LECTURES ON FEVER: Delivered in the theatre of the Meath Hospital and County of Dublin Infirmary. By *William Stokes, M. D.*, etc. Edited by *John William Moore, M. D.*, etc. Philadelphia: H. C. Lea. 1876.

Here are 33 lectures on the subject of Fever, by an eminent man. Their delivery was spread over many years—nearly

twenty; they were not delivered in any systematic order; notwithstanding careful revision, all the contradictions furnished by one lecture of the opinions expressed in another, have not been eliminated; considerable space is devoted to the discussion of the separate identity of typhus and typhoid fevers—a discussion utterly useless to an American student; they are bare of histological research, and of any study of the chemico-vital states of the fluids or the organs. While we discover in these facts serious drawbacks to the completeness and value of the work, and a reason why it will not find its way to the tables of many practitioners; the lectures contain a vast deal of the history of the study of fever, and the writings upon it, beside an exhaustive discussion of several important phases of the subject.

REPORT OF THE FIFTH INTERNATIONAL OPHTHALMOLOGICAL CONGRESS held in New York, September, 1876. Published by a committee of *H. Knapp*, *H. D. Noyes*, *Chas. S. Bull* and *R. H. Derby*. New York: Appleton & Co. 1877.

The peculiar feature of the late *International* Congress was the great scarcity of European delegates; seven oculists were all that the old world could afford to send across the water for the occasion!

A great many papers were read; but the most of them as we naturally may expect of papers which are to be submitted to an assembly of specialists,—dwell upon very special topics and theoretical speculations, from which the physician cannot derive any practical information in regard to the management of diseases of the eye.

The question of introducing the meter-measure for the determination of lenses was brought again before the congress. This innovation has been agitated ever since 1867, and after a full discussion pro and contra at the meetings of the previous congress and in the ophthalmological journals, the project seemed to have gained the support of the leading ophthalmologists. At least, no opposing voice was heard at the congress, though no definite action was taken in the matter.

Most of the papers, being presented by American oculists,

the report reflects great honor upon the scientific energy of our specialists.

The report is printed on very good paper, and *neatly bound*, an improvement which we hope the publishing committee of the future congress will adopt.

BOOKS AND PAMPHLETS RECEIVED.

The Practitioner's Hand-book of Treatment; or The Principles of Therapeutics. By J. Milner Fothergill, M. D., etc.

The Microscopist; A Manual of Microscopy and Compendium of the Microscopic Sciences, etc., etc. Third Edition, rewritten and greatly enlarged. By J. H. Wythe, A. M., M. D.—1877.

A Course of Practical Histology; being an introduction to the use of the microscope. By Edward Albert Schäfer, Asst. Prof. Physiology in University College, London, 1877.

Principles of Theoretical Chemistry, with special reference to the Constitution of Chemical Compounds. By Ira Remsen, M. D., Ph D., etc., 1877.

The Tonic Treatment of Syphilis. By E. L. Keyes, A. M. M. D., etc., 1877.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the U. S., for 1875. John M. Woodworth, M. D. 1876.

A Practical Treatise on the Diseases of Children. By J. Forseith Meigs, M. D., and William Pepper, A. M., M. D., Sixth Edition, Revised and Enlarged. Philadelphia. Lindsay & Blackiston, 1877. Price $6.00.

Myelitis of the Anterior Horns or Spinal Paralysis of the Adult and Child, by E. C. Seguin, M.D. New York, G. P. Putnam's Sons, 1877. Price $1.50.

General Index to the New York Medical Journal, from April, 1865, to June, 1876. By James B. Hunter, M. D., New York. Appleton & Co., 1877.

Report of the Board of Health of the State of Georgia for 1876, with appendix, etc.

Transactions of the Nebraska State Med. Society at its 6th, 7th and 8th Annual Meetings.

Annual of Syracuse University. 1876-1877.

An Essay on New South Wales, the Mother Colony of the Australias. By G. H. Reed. 1876.

Principia; or, Basis of Social Science. By R. J. Wright.

Illuminating Oils in Michigan. A Lecture. By R. C. Kedzie, Member of the Board of Health.

On Some Conditions, Physical and Rational, in Effusions of the Pleura. By Beverly Robinson, M. D.

Annual Announcement of the Medical College of the Pacific. Session of 1877.

Annual Reports of Cook County Agent, Warden Insane Asylum and Poor-house, Medical Superintendent Cook County Insane Asylum, Warden Cook County Hospital, Cook County Physician, and Coroner, for the year 1876.

Catalogue of the Trustees, Professors and Students of the Jefferson Medical College for Session 1876-7.

First Annual Report of the State Board of Health of Wisconsin—for 1876.

On the Differential Indications for the Use of the Faradic and Galvanic Currents. By A. D. Rockwell, M. D.

Considerations in Relation to Diseases of the Joints. By David Prince, M. D.

The Operation of Vesico-Vaginal Fistula: A Comparison of the Methods of Operation of N. Bozeman, M. D., of New York, and Prof. Gustav Simon, of Heidleberg. Translated by A. C. Bernays, M. D.

Fifth Annual Report of the Board of Trustees of the New York Ear Dispensary. 1876.

A Case of Ovariotomy. By David Prince, M. D.

Obituary.

PROF. JOSEPH W. FREER.

Joseph W. Freer was born at Fort Ann, Washington Co., N. Y., Aug. 19, 1816, from Holland blood on the father's side, and from the English Puritans of New England on the mother's. He worked on his father's farm until his nineteenth year, acquiring during this time but the rudiments of learning. He then entered a store in a neighboring village, in the capacity of clerk. He remained here but a short time, and in June, 1836, he migrated to Illinois. Here he devoted himself to agriculture, making a claim on the Calumet River, not far from Chicago, but he was obliged to abandon it in consequence of sickness. He then opened a farm in Will County, Ill., in which he was among the earliest settlers, where he remained until 1846. He was married in 1844. His wife died in 1845, leaving to him an infant son. He was dissatisfied with the medical treatment of his wife in her last sickness, and this circumstance made him determine to study medicine. With limited literary attainments, and with his hard preliminary experience in life, when thirty years of age, he made his way to Chicago, and placed himself as a private pupil in the office of Daniel Brainard. He was graduated from Rush Medical College in the class of 1848–49. He again married in 1849, and leaves at his death his widow and four surviving children. Soon after his graduation, he was appointed demonstrator of anatomy in Rush Medical College, and when Professor Herrick retired from the chair of anatomy in 1855, Dr. Freer was appointed to his place. In 1859 he was transferred to the chair of physiology and military surgery. When Dr. Blaney resigned the presidency of the school during the winter of 1869 and 1870, Dr. Freer was elected to the position, which he held to the time of his death. At the close of the recent session of lectures in the college he seemed enfeebled by the hard work

of the winter. Soon after, he stood several hours in the dissecting-room of the college, when it was imperfectly heated, giving his son instructions in dissection, and from this exposure he took a severe cold, which sent him to a sick bed on the 1st of March, from which he passed to his final rest on the 12th of April following.

His symptoms indicated meningeal inflammation at the base of the brain, and the autopsy proved the accuracy of the diagnosis. Prof. Freer was a self-reliant man, of marked individuality of character. He held all sham and pretense, and falsehood in the garb of truth, in hearty detestation. His opinions of men and events were open to the world, and what he believed he feared not to utter. He made no great claims for himself, but was content to let his life speak for him. His mental qualities were solid and strong, but not brilliant. He had a clear judgment, and great perseverance, and viewing an object before him worthy to attain, he pursued it with a tireless purpose. He led a pure, temperate life of integrity, and was moved by worthy motives. He was sensitively honorable in his relations to the profession. He was honest with his patients, and gave to the consideration of their cases careful study and assiduous attention, and both in medicine and surgery was eminently conservative in his treatment, a practice which added largely to his usefulness.

Though he was always a laborious practitioner, he loved the science of his profession better than its practice, and this doubtless contributed much to his attainments and success. As a teacher, he mastered his subject, and presented it in clear, simple and forcible language, and never submerged his thoughts in superfluous words. He stood among the representative men of his profession in America, and his example is of great value to the young, and is abundantly worthy of their imitation, while to those who have long wrought well in the profession, it lends reflected honor. Such men add dignity to cities and States in which they labor, and any community that holds them in its midst may well give thanks.

Medical News and Items.

Dr. J. W. Freer. A meeting of the physicians of Chicago was held on the evening of April 13, to pay their tribute to the memory of the esteemed late president of Rush Medical College. The following resolutions were adopted as expressing the sentiment of the profession ;

In Memoriam—Joseph Warren Freer. Born Aug. 10, 1816. Died April 12, 1877.

His professional associates, townsmen, and friends, meeting to pay their tribute of respect to his memory, and to express their sentiments of his life, after deliberation, have formally expressed, and desire to put on record, this estimate of his character, his life, and his services.

Reared amid the drudgery of farm life and deprived of all but the most meagre education, Prof. Freer acquired early a love for knowledge, that made him always a learner for the sake of learning.

He honored the vocation of agriculture in his early years by his thrift and enterprise, and improved it by his study of its best methods.

When—late in life to begin the acquisition of a new profession—he took up the study of medicine, he gave to it that enthusiasm which he had learned to give to all study, and the vigor of a manhood made strong by toil and sobriety and self-denial. He remained a faithful, humble student through life.

As a student of medicine he was original, and he enriched the science of physiology by important discoveries. He attained a position in the profession which few may hope to attain, but his advancement was slow and came by hard work and faithful service. His contentment in earning a position without grasping for it, and his high reward finally, furnish an example in the highest degree worthy of emulation.

In his college relations he was always warmly attached to his colleagues, and this feeling was heartily reciprocated. He was a hard-working teacher. He taught the facts of his branch with no attempt at flourish or embellishment, satisfied to let great principles be their own adornment. He was ever regarded with affection by his classes, who were wont to call him by some homely sobriquet of endearment.

He was a man of but few words, but his words were laden with thought. His speech was rugged, yet always fine and expressive in its vigor. In his opinions he copied from no man,—they were his own,—and in the expression of them, as well as in all the acts of his life, his courage was without weakness.

His loyalty to his friends was proverbial. He loved right, and was conscientious in the performance of what he regarded his duty. If he hated anything it was wrong, and, if he were unrelenting toward anything, it was toward what he believed to be wrong action on the part of those who knew the right.

An exemplary citizen; a dignified, courteous gentleman in his daily life; in his domestic life beyond reproach; a man of high attainments in his profession, and who has rendered fine service in the advancement of science; and a conscientious teacher; the career of Prof. Freer is one that his friends and family may be proud of, and that the profession may well strive to imitate.

In this dark hour of his family's distress, we unite our warmest sympathy and love with that of his many patrons, to whom he was always most cordially and devotedly attached.

Upon learning of the death of J. W. Freer, the *students of Rush Medical College* met in the lecture room; Mr. W. E. Hall acting as chairman. The committee named below was appointed, who drafted the following resolutions which, upon presentation, were adopted:

Whereas In fulfilment of the natural laws which Almighty God has established to govern the life and destiny of Man it has pleased Him to remove from our presence, by the hand of death, our esteemed President and Instructor, Dr. Joseph Warren Freer. Therefore

Resolved, That in his death the students of Rush Medical College have lost their kindest friend, one of their most respected instructors; the institution its worthy President, and the scientific and medical world one of its ablest leaders.

Resolved, That we tender to his family our individual and united sympathy.

Resolved, That we attend the funeral as a class.

Resolved, That these resolutions be furnished to the press of the City and the Medical Journals of the country, and that a copy be presented to the family of the deceased.

A. L. Craig, Chairman; A. E. Baldwin, Sec'y; W. L. Smith, J. H. Burlingame, C. A. Hayes, M. D.

In consequence of the death of Professor JOSEPH W. FREER, the following changes have occurred in the faculty of Rush Medical College:

J. Adams, M. D., LL. D., Professor of Principles and Practice of Medicine, has been elected President of the Faculty.

The chairs of Physiology and Nervous Diseases have been consolidated, and Professor Henry M. Lyman has been elected to fill the position thus created.

Dr. D. R. Brower, late Superintendent Eastern Lunatic Asylum of Va., has been appointed Attending Physician for Mental and Nervous Diseases at St. Joseph's Hospital; this position was occupied by Dr. Walter Hay, and was made vacant by his departure from the city.

A meeting of the Provisional Association of American Medical Colleges will be held at the Palmer House, Chicago, on Saturday, June 2d, 1877, at 10 o'clock, A. M. All colleges represented at the meeting of the Association held June, 1876, are invited to send delegates to the ensuing meeting, and all chartered medical colleges in the United States recognized as "regular" by the colleges already represented in this Association, are also invited to send delegates from their Faculties to the said meeting. J. B. BIDDLE, M. D., *President.*

Prof. Frank H. Hamilton has just paid a brief visit to this city. Prof. Gunn gave a reception at his residence, at which a large number of the medical teachers of the city had the pleasure of meeting Dr. H. It is delightful to observe how lightly the labors of his life touch him, and with what dignity and grace he wears his honors.

The annual meeting of the Michigan State Board of Health was held in Lansing, April 10, 1877. Dr. R. C. Kedzie was elected president for the ensuing year.

THE ANATOMIST, an oil painting by G. Max, was so much admired by the visitors of the Centennial Exposition, that the general desire to possess a copy of the original induced Mr. R. Behrendson, (48 and 50 Nassau Street, New York), to have a cheap etching made, which can be had for one dollar.

THE CHICAGO MEDICAL SOCIETY. This society, which is the oldest medical organization of the city, held its annual meeting on the evening of April 2d.

All the officers were re-elected to serve another year, viz.: Dr. E. Ingals, President; Dr. H. M. Lyman, Vice-President; Dr. D. W. Graham, Secretary; Dr. C. W. Earle, Treasurer.

The secretary's annual report showed that the past year had been a very prosperous one for the society, in the increased attendance, the character of the papers and reports presented, and in the general interest manifested by the members.

The Society has a membership of one hundred and twenty-five.

The Board of Regents of the Michigan University have resolved, if the legislature will make a sufficient appropriation to cover the additional expense, and to make up for the deficit that would result in the income of the Medical Department by the step proposed, to lengthen the term of lectures in this department to nine months, and to establish a physiological laboratory of a high order for the use of both medical colleges. They ask the legislature also to appropriate funds for carrying on the hospital connected with the department—otherwise this will be closed. They proffer a part of the hospital for the use of the homœpathic college professors for clinical instruction.

The veteran and accomplished editor of the *American Medical Bi-Weekly*, in the March 17th issue, says: "Since the failure of Messrs. W. B. Keen, Cooke & Co., the publishers of this journal, (THE JOURNAL AND EXAMINER), it has reäppeared." We wish to say to Professor Gaillard that THE JOURNAL AMD EXAMINER has never *dis*appeared—consequently its *re*äppearance is an impossibility. Since its first appearance in September, 1875, it has been regularly and promptly issued. The trifling matter of the change of publishership can never cause this periodical to delay in its regular appearance, much less to *dis*appear so as to *re*äppear. THE JOURNAL AND EXAMINER is a *success, financially*, as our readers may well infer from its increase in size after June, of this year, and our friends need have no fear of its collapsing.

The medical editor of the *Syracuse University Herald* arraigns the Faculty of the College of Physicians and Surgeons of N. Y., for conferring the degree of Doctor in Medicine upon one Henry L. Elsner, of Syracuse. The Faculty is accused of disregarding every one of its five requirements for graduation. E. was sixteen months under the required 21 years of age, had read medicine one and one-half years, had attended *half* a course of lectures in Syracuse Medical College and one course at the College of Physicians and Surgeons, and his preceptor was *not* recognized in Syracuse as a "physician in good and regular standing." The medical editor of the *Herald* concludes that E. cannot comply with the fifth and last requirement, viz., to possess a good moral character, if he swear that in other respects he had complied with the usual requirements. It seems that E. graduated with honor, for he received a twenty-five dollar prize for the excellency of his thesis.

EYE AND EAR INFIRMARY.—The tenth biennial report of the trustees, surgeons, and treasurer of the "ILLINOIS CHARITABLE EYE AND EAR INFIRMARY," has reached us. The report covers

the twenty-two months from January 1, 1875, to October 1, 1876. During this time 2,478 patients received gratuitous treatment at the dispensary; 220 had free board and treatment in the infirmary; and 80 received gratuitous treatment at the institution, their board being paid by friends or from their own limited means.

Of the total number, 2,332 were treated for diseases of the eye, and 446 for diseases of the ear. Operations on the eye are recorded 368, of which 31 were performed for cataract, 44 for strabisums, 63 for artificial pupil, and 33 for extirpation of the eyeball.

The medical board of the infirmary consisted of H. A. Johnson, M. D., Edward Powell, M. D., J. W. Freer, M. D., as consulting surgeons; E. L. Holmes, M. D., and F. C. Hotz, M. D., attending ophthalmic surgeons; S. J. Jones, M. D., attending aural surgeon; and I. N. Danforth, M. D., microscopist.

The new infirmary building (corner of Adams and Peoria streets) was completed in October, 1874, at a cost ot forty-two thousand, six hundred and ninety-three dollars. Of this sum the State had appropriated twenty-eight thousand dollars. The balance had been accumulating from donations, interest and subscriptions. The lot on which the infirmary stands was also donated to the institution.

The institution is under the supervision of a board of trustees, appointed by the governor of Illinois.

The following certificate will admit a patient residing in Illinois to the infirmary, for gratuitous treatment and board:

"*This is to certify that ..... of the town of .....county of ....., State of Illinois, is absolutely without means to pay for his (or her) board, or treatment at the Illinois Charitable Eye and Ear Infirmary.*"

This certificate must be signed by the supervisor of the town, or the judge of the county court of the county in which the patient resides.

Summary of Progress in the Medical Sciences.

I. Obstetrics and Gynecology.

Viability of a 6 months fœtus. Dr. Githens. (*Amer. Jour of Obstet. and Diseases of Women and Children.* Oct., 1876.

The child was born May 20th, 1876. Dr. G. would not allow it to be washed, and had it wrapped in cotton, which was changed daily. This dressing was continued for two or three weeks. The child was fed on milk and cod's liver oil until able to nurse. "This infant has shown its ability to support an independent existence at the early age of 178 days, or six calendar months," a conclusion reached by Dr. G. after carefully determining the exact time of the last visit home of the father of the child.

Synopsis of Four Hundred Cases of Obstetrical Practice. Kinsman. (*The Ohio Med. Record*, Feb., 1877.)

Of the four hundred cases of labor that occurred among well-to-do people, there were born, of three hundred and forty-seven mothers, four hundred and eleven children. Of the cases, nine were twins, and one triplets. Some part of the cephalic extremity presented in three hundred and eighty-nine cases; and of the face, two. Back presentations, six, one of knee and four transverse.

There were twenty-five deliveries with forceps; of these, it was applied three times at superior strait. Podalic version was performed five times. "Cephalic version" was not successfully performed, the waters escaping being the cause of failure. Of the five children turned, three were born living, the other two were dead before operation.

Only one case of prolapsus of funis is mentioned. One case of short cord, 10 inches in length, still birth, is reported; eleven were born dead; five had been dead for some time, one perished in placenta prævia, one in rupture of uterus, one from cerebral hemorrhage, one footling, death occurring, after escape of body, two while mothers were in convulsions, and one delivered dead with forceps. Six mothers died from the immediate cause of labor, viz.; Rupture of uterus, placenta prævia, puerperal convulsions, embolism of middle cerebral artery, septicæmia and peritonitis. The complications of labor were as follows: Convulsions, four times; agglutination of neck of womb, once; rupture of uterus, once; fibroid tumor, once; placenta prævia, three times; adherent placenta, twice; post-partum hemorrhage, ten times.

Of the defects of organization, the following cases were reported: One

of imperforate anus, one of atresia of vagina, one of agglutination of meatus urinarius, one of hair lip, one of redundant fingers and toes, and one of cyanosis from cardiac defect. Of the three hundred and forty-seven cases, one hundred and nine were primiparæ. The second stage of labor averaged about four hours. The longest labor was seventy-two hours, and occurred in a woman forty-seven years of age. The forceps were used in twenty-five cases; the following occasioned its use: convulsions, three times; impacted head, three times; spasms of uterus, five times; face presentation, once; exhaustion, with head at sup.strait, three times; threatened exhaustion, with head in sup.strait, eight times; failure to rotate, two times.

Of the forceps deliveries, four children were born dead, two where the mother had convulsions, one where there was threatened peritonitis, and one impaction of the head. Two of the mothers that were delivered with forceps died; of septicaeima, one, and of peritonitis, one.

W. F. L.

The Relations of Albuminuria to Pregnancy. MARTIN. (*Proceedings of the Med. Society of the County of Kings.* Vol. I. No. 10.)

That albuminuria in pregnancy is vital and not mechanical, is argued, and supported by a collection of cases by Dr. M. The cases reported show that; death of the ovum will relieve severe and progressive uremic symptoms, even without its removal from the uterus. One of the cases is as follows: A lady, having passed a single period only, consulted her physician for relief from distressing headache, disturbances of vision, nausea, etc. Albumen having been discovered in the urine, the usual remedies were applied, without benefit. Interference with the impregnated uterus being denied her, she went to a quack doctor in New York City, who introduced a sound into the uterus every week, for seven consecutive weeks before the contents were discharged.

Patient said that soon after the first introduction of sound, she experienced great relief. Returning home to her family doctor, her urine was examined, and found perfectly normal. Two years later she again became pregnant, the same line of symptoms following as before, and the urine loaded with albumen. Again the ovum was destroyed, with same relief to patient. Ten days after the uterus had been emptied, urine was examined, but showed no trace of albumen. In the cases reported, no cause coincident and concurrent with pregnancy, and yet independent of it could be detected. As to the origin of albuminuria in early pregnancy, when the womb is not sufficiently large to make pressure on the renal circulation, the author says: "When an ovum is fertilized, a profound impression must be made upon the nervous centres, which preside over the process of nutrition. The rapid and complete growth of the fœtus; the establishment of a new vascular system for its support, demand large applications of nutritive force. The medium through which these impulses are transformed into actions, is the great sympathetic nerve. The first steps toward any change of nutrition are accomplished by the agency of

the vaso-motor nerves. The blood being ready to furnish material, the capillary circulation must be ready to take it up. And this condition of excitation must be maintained by the action of the sympathetic nerves during the whole time that an extra supply is needed. The uterus and kidneys are certainly associated organs, and it is, therefore, at least probable, that an influence derived from the unusual nutritive activity in the uterus may be reflected from the nervous centre through the usual nerves, and being continuous, may stimulate or alter the interstitial circulation of the kidney in such a way as to produce albuminuria."

W. F. L.

Child-bearing and its Effects on certain forms of ear disease. F. M. PIERCE, M. D., of Manchester. (*Obstet. Jour. of Great Britain and Ireland*, 1876.)

P., in a paper read before the last meeting of the British Medical Association, drew attention to the occurrence amongst a certain class of patients, of marked increase in deafness, and in the gravity of the symptoms of ear disease, due to pregnancy, parturition, &c. The form of aural mischief most aggravated by these processes, was chronic non-suppurative inflammation of the tympanic cavities. After each confinement, the patients were much worse, the hearing diminished, and the tinnitus aurium was more marked. The deterioration was very persistent, and extremely obstinate; and ultimately, after repeated confinements, the hearing was almost entirely abolished. Young, strong, and apparently healthy females were the chief sufferers; often they had never had any ailment in their lives. The aural deterioration began with pregnancy, and increased onwards to parturition, after which the effect remained: a result by no means comparable with the temporary aggravation seen during other constitutional affections, fevers, &c. Other forms of ear disease were not affected in the same permanent manner as chronic non-supperative inflammation of the tympanic cavities. No history of any syphilitic taint could be detected in these cases. Whether the effect on the aural condition produced by child-bearing was only part of a general diminution of nerve power, and in no way due to the special condition of pregnancy, &c., apart from its constitutional deterioration, was matter for further observation, though the facts were in favor of its being caused by the state peculiar to pregnancy. Early attention to treatment was most important to these patients.

Premature labor, induction of, by a new apparatus. DR. CHASSAGNY (*Archives de Tocologie*, 1876.)

Dr. Chassagny describes a new apparatus for the induction of premature labor. It consists of a double dilating bag, each bag being filled by a separate tube, so that the tube which communicates with the upper bag passes through the lower. The lower bag is made of thick india-rubber. It is inserted into the vagina, and dilated with air or water, the effect of which is to induce uterine contractions. The upper bag, which is made

of extremely thin india-rubber, is then filled with water. As it is supported by the thick bag below, the effect of this is that it insinuates itself into every pouch of the vagina, and sends out a finger-like projection into the cervix, which, as the author believes, effects its dilatation with far greater mechanical advantage than even the natural pouch of liquor amnii. By experiments on models made to represent the vagina and cervix, he has satisfied himself that this projection of a finger-like pouch into the cervix does actually take place, even when the cervix forms at first a prominence, and the os is undilated. He therefore considers that his double dilating bag is far superior to the dilating bag of Gariel, or the colpeurynter of Braun, which merely distends the vagina, and often brings on active labor pains only after a long interval. It is also far easier of application than intra-uterine dilators, which require to be frequently reinserted, and it can be used even when there is, at the commencement, no dilatation whatever of the os. The methods of puncturing the membranes, of dilating the os with tents, or of introducing an elastic bougie, the author considers to be exploded as a means of inducing labor.

A case is related in which the method was successfully applied. The patient, aged forty-seven, was reduced to the last extremity by uncontrollable vomiting, and induction of labor was commenced about three weeks before full time. The os was extremely high up, hard, rigid, and nodular, and would not admit even the point of the finger. Pains were brought on soon after the introduction of the bag, the os was dilated to the size of a franc after five hours, and labor was completed after about twenty-four hours, although on two occasions the bags were removed for some hours, during which time pains entirely ceased, and the os became again contracted. This cessation of pain appeared to be due to the exhausted state of the patient.

The application of the double dilating bag is not confined to the induction of labor, but, in the author's practice, it supersedes all other means in many cases. Thus it is used instead of tents to dilate the cervix of the unimpregnated uterus, in order to explore its cavity, to restrain hæmorrhage, to remove polypi, or to make intra-uterine applications. In cases of placenta prævia it effects a complete dilatation of the cervix without allowing the slightest hæmorrhage to continue, an effect which the author has observed in a dozen cases. When the insertion completely covers the os, he pierces the placenta through the centre, and finds that the bag insinuates itself into this opening with an equally good result. But it is in post-partum hæmorrhage that the results are most striking. The uterus is first emptied of all clots, and the bags are then introduced and dilated with water. The thin bag then insinuates itself into the uterus, and completely fills it, compressing the open mouths of all the bleeding vessels. When the uterus begins to contract, it may be allowed to expel the water, the open mouth of the tube being kept at a high level. There is then perfect security that no cavity is formed into which hæmorrhage could take place. The author has saved by this method two patients who would otherwise inevitably have perished, all other means having been used in vain.

Spondylizema, or, Vertebral Sinking produced by Pott's Disease, as a new cause of pelvic alterations, compared with Spondylolisthesis, or Vertebral Gliding. DE PAUL. (*L' Union Méd.*, January 25, 1877, No. 10).

The following are the author's conclusions:

1. Diseases of the lumbar and sacral vertebræ may induce two essentially distinct deformities, according as the caries affect the *body* or *arch* of the vertebra.

2. In the first, when the *body* is destroyed, which is the real support of the column, the latter sinks upon itself and becomes inclined. This inclination may produce such an extensive forward projection that it *covers* the superior strait and interferes with fœtal engagement in the canal. This lesion we have concluded to term *spondylizema*—vertebral sinking.

3. In the second deformity, when the vertebral arch is altered, which, by means of its apophyses and articular surfaces, maintains in position the column with the ligaments and muscles of this region, the spine, obeying the laws of gravity, *glides* forward into the pelvic cavity, and thus *obstructs*. To this lesion Kilian gave the name of *spondylolisthesis*—vertebral sliding.

4. In *spondylizema* the sacro-pubic diameter preserves its normal length. It may be even increased by reason of the diminution of the height of the base of the sacrum. But the *strait* to be passed by the fœtal head is pushed up higher. It is represented by a line which extends from the pubis to the body of one of the dorsal or lumbar vertebræ, brought nearer to the pubis by the forward inclination of the vertebral column.

5. In *spondylolisthesis* the sacro-pubic diameter is shortened by the interposition of the bodies of the lumbar vertebræ between the pubis and sacrum, in consequence of their gliding into the canal in advance of the sacrum.

6. The consequences of this last form of lesion are, as regards the pelvic cavity, more grave than in the former case. The two, when combined, may, as facts have abundantly demonstrated, lead to the most painful necessities of all operative midwifery.

II. PRACTICAL MEDICINE.

Clinical Cases of Hydroadipsia. With some facts concerning the Water Supply of living Bodies. MCELROY. (*The Cincinnati Lancet and Observer*, January, 1877.)

In the Zanesville Glass Factory, the blowers are obliged to stand between two furnaces,—a melting and a heating furnace. In the warmest weather they drink from 50 to 60 pints of ice water, and some of them in addition, 2 to 3 pints of beer, in nine hours. The amount excreted by the kidneys is but little increased, nor the color of urine perceptibly changed by this enormous consumption of water. The excretions from the bowels do not seem to be increased by the use of such large quantities of drink. When not working, about 3 or 4 pints of water in 24 hours will suffice

them. The amount of food consumed by them seems not augmented by labor. Most of the water drunk is eliminated by the skin; very little by the lungs, and no considerable portion by the kidneys. The men are very light in weight, hardly averaging 150 lbs. In three days they drink water equal in weight to that of their bodies. When the men lose the sense of thirst—Hydroadipsia—they cannot continue their work; but to recall the sense of thirst, salt is thrown into their mouths, which they chew and swallow, and soon the sense of thirst is restored. Dr. M. has reported quite a number of cases of Hydroadipsia; one occurring in a lady 50 years of age, who was treated by two physicians for softening of the brain. On examination of patient, the author says: Found her with continuous pain in the side, sick at the stomach most of the time, and no appetite.

Food distressed her after eating. Never drinks any water; but drinks a little tea between meals. Has had no inclination to drink water for a number of years. Passes a very little high-colored urine twice a day. Her complexion is pale; does not sleep at nights. Pulse 108, weak and thready. Temperature 100°. Patient was at once given large quantities of fluids; milk and hot water, palatably seasoned, were prescribed for her, together with such medicines as would aid her in sleeping, and move the bowels Patient soon convalesced, and finally recovered her usual health.

Loss of the sense of thirst, and the abstinence from the necessary amount of water that the system required, was sufficient cause of her embarrassed health. W. F. L.

Treatment of the Paralytic Affections of Diphtheria. CORMACK. (*Edinburgh Med. Jour.*, July, 1876.)

In every eleven cases of diphtheria, one is characterized by paralysis. The paralysis is usually first manifested in the inferior extremities; the superior ones, however, soon become involved. The peculiar characteristic is paralysis of the veil of the palate, which occurs as a sequel to diphtheria, but to no other disease. Very frequently the veil of the palate is alone affected, other portions of the body escaping. Atrophy in convalescent diphtheritic patients may be due to a protracted disuse of muscles, which, very frequently results in paralysis; where this is true, if prompt and early treatment is instituted, permanent paralysis may be prevented. In convalescence from diphtheria, the dominant condition is asthenia, and to this and anæmia are the paralytic affections attributable, hence the treatment indicated is such as tonics, combined with such local treatment as will improve the nutrition of the muscles involved in the paralysis.

W. F. L.

Metastases of a simple Bronchocele. COHNHEIM. (*Centralbl. f. Chir.*, 1877, p. 119.)

At the autopsy of a woman, aged 35 years, who died of decubitus and diphtheria of the colon, a great number of small tumors were found in the lungs and bronchial glands, in the second, third, and fourth lumbar

vertebræ and in the right femur. The structure of all these growths was alike and presented the typic picture of the texture of the thyroid gland. This gland was somewhat enlarged, and its left lobe contained two lumps of a soft gelatinous consistence, one of which sent a small nodule into the lumen of a larger branch of the thyroid vein.

III. Surgery.

A New Rectal Dilator and Explorer. Ph. S. Wales. (New York Medical Rec., No. 329).

The treatment of stricture of the rectum is always tedious, painful and difficult, and in an increasing proportion to its distance from the anus. The malignant forms are uniformly fatal, and it is only in the non-malignant varieties that a successful issue may be secured by surgical measures. The ordinary appliances employed in the latter class of cases have not been altogether satisfactory, particularly in those instances in which the obstruction is seated high up in the bowel, and beyond the reach of the finger. Having recently had two cases of this latter sort, in one of which particularly the practical difficulties culminated from the height of the stricture, Dr. W. used a new kind of dilator with the most gratifying results. These dilators were manufactured out of pure rubber, with a canal running the whole length, and gradually increasing in size by an eighth, from a quarter of an inch to an inch in diameter. Each dilator is filled with a green sheath of corresponding dimensions, and if connected with a syringe or Politzer's air-bag, the sheath can be distended with water or inflated with air. The points of the dilators may terminate spherically or conically, the latter form, on the whole, being more easily introduced. The whole length of the sheath, both inside or outside the bowel, or any portion of it, may be filled with water; in the latter case a thread is to be twisted around the dilator at any point where it may be desirable to limit the distention.

"The method of introducing the dilator is simple. I prefer placing the patient, reclining on his left side, upon an ordinary operating-table, the thighs flexed and the buttocks just overhanging the lower edge. The operator may then comfortably seat himself during his manipulations—an advantage of no ordinary character, if they are to be at all prolonged. The smallest-sized instrument is smeared with grease, and its point inserted into the anus, and gently pushed onward in the following manner. The right hand grasps the dilator close to the anus, and the whole perineum is to be pressed upwards, which will advance the point of the instrument; the left hand now steadies it, while the right is slid downwards for a lower hold, the perineum of course settles with it; the dilator is again pushed forward in the same manner until the obstruction is passed. I have occasionally found that this may be greatly facilitated by sinking the fingers of the left hand deep into the left iliac region, and drawing

upwards, as though an effort was being made, so to speak, to stretch out the sigmoid flexure, while pressure is maintained at the same time upon the dilator in the manner described. Another practical point of prime importance is to employ an abundant stream of water, projecting it through the conduit of the instrument as warm as can be comfortably borne, whenever its point is arrested from any cause. The water flowing from the distal aperture will distend the bowel, efface its folds, and break down any hardened fæces that may exist, obstructing the ascent of the dilator. While the operator is engaged with the dilator, an assistant may manage the syringe and throw in the water in such quantities as may be needed. It must be borne in mind, however, that no great volume should be used at once, otherwise the bowel will be excited to energetic contraction, and compel the dilator to be withdrawn before it has been properly lodged. In preliminary trials, the dilator may be permitted to remain two or three minutes, and afterwards, when greater tolerance is established, a longer stay may be allowed. I rarely exceed half an hour in any case, even when the patient makes no complaint of irritation or pain. After several introductions of one size of the dilators, perhaps seven or eight, the next largest may be taken, and so on until the stricture has been sufficiently expanded. The application of the instrument may be repeated twice or thrice a week, according to circumstances, such as the irritability of the rectum, temperament of the individual, and intercurrent attacks of diarrhœa, or other trouble. Twice a week, in my experience, suffices in most cases of rectal catheterism. A fortunate issue, if attainable, can only be brought about by patient and prolonged treatment. Rudeness or violence, inflicted with a view of hastening the case, can effect nothing but harm, and may jeopardize the life of the patient. If the instruments be hastily thrust in, the bowels may be perforated, especially in those cases in which inflammatory softening or ulceration exists; or, if they be too large, the rectal mucous membrane may be ruptured, giving rise to smart hemorrhage, as happened in one of my early cases; or the entire wall of the bowel may be ruptured into the peritoneum—an accident that is pretty sure to be followed by peritonitis, with all of its attendant dangers.

"These funest sequences are infinitely less liable to follow the use of pure india-rubber dilators than that of any other sort; for certainly, *a priori*, nothing could furnish a milder, more equable, and less dangerous force than these, and experience sustains this view.

"I have also been using the dilators in applying ointments, variously medicated with astringent and anodyne substances, in cases of relaxation of the intestinal mucous membrane, prolapse, hemorrhoidal tumors, and other morbid rectal conditions. A slight modification converts the dilator into an irrigator; that is, by having two parallel conduits in it—one for the fluid to pass in, and the other for it to escape externally. The bowel may be thus irrigated quite high up, for I have frequently inserted the instrument twenty-eight inches into the colon. In one case the patient passed every morning one or two large, yeasty stools, mixed with mucus,

and followed by much mental depression. A cure was obtained by the injection, three times a week, of a solution of carbolic acid, after internal medication had failed. Much advantage may be realized from the use of warm irrigation in various diseases of the contiguous pelvic and abdominal organs—as cystitis, prostatitis, suppression of urine, and intussusception. The half-inch dilator will furnish a ready tube for introducing alimentary substances into the stomach or rectum.

"A reliable explorer for diagnosing intestinal diseases may be prepared in the following manner: take a dilator, say one-half an inch in diameter, and over its distal extremity draw a hood of thin india rubber two inches long, securing its margin with a fine silken thread. If the rubber is not at hand, a piece of moistened bladder or gold beater's-skin will answer very well. The instrument thus made ready should be well coated with a stiff grease, like simple cerate, or zinc ointment, which works better than sweet oil in facilitating its gliding over the mucous membrane, and introduced in the manner described for the dilator, until its point is lodged far above in the descending colon. A syringe is attached to the instrument, and its point expanded into the form of a ball an inch or more in diameter. Gentle traction is now to be made, which will cause the ball filled with water to move slowly down the bowel. If no obstacle is present, the ball will soon emerge from the anus; on the contrary, any obstruction will arrest it above. It may be that spasmodic contraction will have a like effect, but this can be easily distinguished from permanent stricture by keeping up the traction a few moments, until the muscular force of the intestinal walls is exhausted, when the ball will again slip along. In cases of organic narrowing, its degree may be determined approximately by maintaining the traction on the explorer, while the water is permitted to flow out in small quantities at a time, until the size of the ball is sufficiently reduced to slip past the constriction; the diameter of the ball, which represents that of the stricture, may be now ascertained by mere inspection.

Shortening of the Lower Limb after Fracture of the Femur. WRIGHT. (*Archives of Clinical Surgery*, February, 1877).

A very rational way of explaining the reason of shortening of the lower limb after fracture, is by making comparative measurements of lower limbs that never have been broken. Dr. W. has accomplished this, by a careful measurement of the lower limbs of sixty cases; giving the age, occupation, and nativity of each. The maximum disparity in length, was one and three-eighths of an inch; the minimum, one-eighth of an inch. All these measurements were made in the usual way, from the most prominent point of the anterior superior spine of the ileum, to the lower extremity of the internal malleolus. After a careful, and lengthy investigation of lower limb shortening, the author arrives at the following conclusions:

"First. The lower limbs of the same person are not always of the same length.

Secondly. The greater number of lower limbs, comparing the limbs of the same person, show a difference in length.

Thirdly. The normal lower limbs that I have measured, give the fol lowing result: The left lower limb is oftener longer than the right, and the right lower limb is nearly as often longer than the left.

Fourthly. About one person out of every five has lower limbs that measure the same length.

Fifthly. I have measured the lower limbs of cadavers and of skeletons, the soft parts having been removed by dissection. These measurements confirm the above results."

The cause of normal lower limb shortening, he says, may be deficient development of the epiphyseal cartilage, that is, one of the cartilages might continue to grow, and ossify after the other had completed its developments; or "a variation in the length and obliquity of the neck of the femur, incident to the age of the patient, may not occur during the same time, and with equal pace in the two femoral necks." A mistake might be easily made in a case, where there was equal length in the normal lower limbs, by the superior spines of the ileum occupying comparatively different positions; one spine projecting a little further down, or a little further up, than its fellow; or one of the malleoli might extend downwards a little further than the one of the opposite side. The author believes that it is impossible to say just how much a broken femur had shortened a limb; the only correct and reliable way would be, to measure the limb before and after the injury, knowing that such a marked differerence exists in the length of normal limbs, it would seem unscientific, and even perilous to apply extension and counter extension so forcibly, as to make an injured limb, where there is considerable shortening, as long as the other. The author says, that in some cases of fracture of the femur, he has easily made the broken limb as long as the other, and supposed it was chiefly due to skillful treatment; while in other cases, equal, and even more care would be exercised, yet the patient would get up with an inch shortening.

W. F. L.

A New and Simple Operation for the Removal of Laryngeal Polypi. PROF. VOLTOLINI. (*Monatsschrift f. Ohrenheilk. and Halskrankh*, 1877. No. 2.)

This new operation which scarcely can be honored with this name, is nothing more or less than the removal of soft polypi in the larynx by a swabbing method. The only instrument required is a piece of soft sponge securely fastened to flexible wire of German silver. The sponge must not be over one centimetre broad; else it cannot be introduced into the larynx. Where the presence of a soft or pendulus polypus has been ascertained by the larynx mirror, the growth is removed without the aid of the mirror, in this manner:

"The patient pulls out his tongue, and the surgeon depressing forcibly the root of the latter with a spatula brings the epiglottis in view. As soon as the epiglottis can be seen, the sponge (which was previously softened in warm water) is passed into the throat, until it reaches the posterior

surface of the epiglottis on which it is made to glide down into the larynx. As soon as the sponge has entered the larynx, it is grasped firmly by a spasmodic closure of the latter; and the whole knack of my method consists in this, *that while the larynx is thus closed, no attempt is made at pushing the sponge further down*; *it should be left in its position until the larynx opens again*, which it must do very soon, because the patient wants to breathe. At the instant when this occurs *i. e.* when the glottis is opened, the sponge is passed down through it. This act is very easy for the patient, as it were, inhales the sponge. Once under the glottis the sponge is moved up and down to swab the vocal cords, and to tear off the polypous growth. If the polypus sits on the upper surface of the vocal cords, it is of course unnecessary for the sponge to get through the glottis; it is then sufficient that the probang has entered the larynx and is turned around in it while the glottis is contracted, for just then the sponge is sure not to miss the proliferous growth." Six cases are reported in the above article that have been treated by this method. V. thinks his operation is applicable to the soft polypi only; but for these which constitute the majority of growths in the larynx, it will supersede all other operations, because it can be performed at once without any preliminary preparations and without the aid of the laryngoscope; because every practitioner can do it by ordinary daylight, and because it will obviate the necessity of tracheotomy or laryngotomy in cases of imminent suffocation due to so excessive a proliferation of soft polypi that they fill the entire lumen of the larynx.

IV. THERAPEUTICS.

QUININE: *Case of Idiosyncrasy in Regard to its Action.* R. M. DENIG. (*Ohio Md. Recorder*, 1877.)

The full notes of Dr. Denig's case are herewith submitted because of the almost universal use of this drug by the readers of the JOURNAL AND EXAMINER. The Doctor reports as follows:

In the summer of 1862 was called to see a boy about seven years of age. From his symptoms I supposed he was suffering from a slight attack of intermittent fever, and prescribed quinine. On seeing him again, in the evening of the same day, I was somewhat surprised to find his whole body covered with an apparently scarlatinous eruption, accompanied with intense itching, some fever and general restlessness. Supposing now that I had a case of scarlet fever to deal with instead of intermittent, the quinine was suspended, and other treatment resorted to. The next day the rash disappeared and the boy recovered without much medication.

Two years subsequently he had a similar attack, which, in my mind, indicated the use of quinine, and without suspecting its agency in produc-

ing the symptoms referred to, we again administered it. The effects which followed were precisely similar to the former occasion, only somewhat intensified.

In twenty minutes after taking the quinine he became red from head to foot, with intense itching over the whole surface; his agitation was great, face swollen, eyes red and suffused, breathing difficult, presenting, altogether, the appearance of extreme suffering.

I now became satisfied he had some idiosyncrasy or peculiarity which induced these attacks of urticaria when quinine was administered, and so stated, warning his parents against giving it or allowing any other person to do so, under any circumstances.

In 1864, being absent from the city, this lad was again taken very sick. The gentleman in whose care I had left my business called to see him. The mother of the boy, fearing the doctor might possibly prescribe quinine, explained to him its peculiar effects, and stated that I had cautioned them against its use.

The incredulous smile of the doctor led her to assure him that she had no foolish prejudices against the use of the medicine in question; that they always purchased it by the ounce and were accustomed to use it freely, with and without medical advice.

He made no reply, but wrote his prescription. In a few hours he was again summoned to the house and found the boy in a most alarming condition, all the symptoms we have enumerated being well pronounced. The doctor, on seeing the state of things, was seriously alarmed for the boy.

He was assured, however, by the parents, that the worst was over. On my return home he gave me an account of the case, stating how much he had been frightened, adding, that in all his long experience he had never witnessed similar symptoms, nor apparently greater suffering, finishing by requesting me to report the case.

A few years later this now young man, after having visited Rome, was attacked, on reaching Paris, with what is called Roman Fever. The medical gentleman to whom he applied again prescribed quinine, which he took without suspecting its presence. He was not long, however, in realizing, from the effects produced, that the prescription contained his now too well recognized foe.

Some six or eight years again elapsed, when he had an attack of fever of well marked malarial type, and of more than usual severity.

Knowing but too well his inability to take the appropriate remedy, I determined on trying salicin; but owing to some unaccountable misunderstanding he again took five grains of quinine. This was taken during the period of intermission, when he was feeling quite comfortable.

In ten minutes after swallowing it he felt the effects in every fibre of his body; his face became red, his lips and eyelids swollen, and whole features bloated. The effect upon the respiratory passages which soon followed, resembled a violent attack of asthma or hay fever; the posterior nares and trachea seemed swollen to an extent as almost to preclude the acces of air,

the threatened asphyxia compelling him to breath with the mouth wide open and *alæ nasi* unduly distended.

No language could describe the apparent anguish and distress present; every muscle which could exert influence on the respiratory function was brought into violent requisition; his agitation was extreme, compelling him to keep in motion; his bloodshot, red eyes and swollen features giving him the most frightful appearance.

After some hours of suffering such as we have endeavored to describe, the secretion of tears became abundant, a profuse discharge from the nostrils occurred, and the symptoms began to subside.

He did not, however, recover his wonted appearance for some days, the itching still persisting to a great extent, accompanied by a weary and exhausted feeling.

The singularity of this case made a strong impression on my mind, as it seems to have done on that of my confrere. I had never witnessed before like results following the administration of quinine, nor seen any case of the kind reported.

No allusion is made in the works on Materia Medica which I have examined to these peculiar effects.

In the October number, however, of the *Annals of Hygiene*, published in Paris, I do find a case reported which is, in every respect, the exact fac simile of mine.

It was meeting with this reported case—the exact resemblance of the two cases—which recalled my attention to the matter, and has induced me to give both the history of my own case and a translation of the case referred to, thinking the matter may not be devoid of interest to at least some members of this Society.

Dr. Adolph Dumas, Adjunct Surgeon of the Hospital de Cetti, says: A female, a distant relation of mine, has for some time presented a singular special sensibility to the action of quinine. Five times in a year, at intervals of several months, she has experienced these symptoms which, on the last occasion, have assumed alarming proportions. The following details of the case I have collected from observation made at the bedside of the patient.

In consequence of a facial neuralgia to which this woman is subject, I ordered her, on the 20th of July, 7 P. M., to take two pills containing five grains of quinine.

Owing to an impression which she had received from former experience, that the effects were less unpleasant when not taken on an empty stomach, she was directed to take a slight repast before taking the medicine.

Ten minutes had scarcely elapsed after its ingestion, when she was seized with extreme restlessness and agitation, flushing of the face, tension of the eyelids, and a prickling sensation around the mouth. In ten minutes there was vomiting of part of the porridge she had taken, and judging from its bitterness a portion of the quinine, accompanied with slight oppression of breathing.

By degrees all these symptoms were aggravated; oppression quite strong; respiration hurried; vivid injection of the face and eyelids, which became distended and half closed; eyes red and watery; intense itching of the whole body, especially where there was any constriction by the clothing, which compelled her to undress and go to bed.

Nine o'clock.—In bed itching still more intolerable; skin over the whole surface red, especially upon the trunk, nates, thighs and calves of the legs.

I can distinguish, in some places, the elevated urticarious eruption; but generally there is redness without elevation, resembling the scarlatinous eruption; in some places, however, there are real papules which render the part rough to the touch. These latter progressively augmented. The patient scratches herself furiously, excoriating the body in several places; the traces of the nails being at first white, but soon becoming red and remaining so; the agitation is extreme, not a part of her person being free from pungent itching. She suffers much in the palms of the hand and between the fingers and toes.

The itching is much increased by the least change of posture.

The oppression becomes greater and greater; respiration panting and sibilant, which can be heard at a distance, and 72 per minute; pulse 104; temperature 101.8; has a little dry cough. She expresses, at times, a feeling of impending suffocation, rejecting all covering, although she is not hot. There are moments when her agony is almost unendurable, and at no time does it entirely relent.

A little later the secretion of tears is augmented, and abundant discharge flows from the nostrils, with frequent paroxysms of sneezing.

Eleven o'clock.—Seven hours after taking the quinine the acute suffering commences to diminish, the itching still remaining. I should add that as soon the symptoms here described were fully developed, the neuralgic pains ceased to a great extent until 11 o'clock, the time at which the habitual exacerbation occurred.

Twelve o'clock.—The coryza, itching, and oppression diminishing in intensity, and the patient commenced to have some moments of repose, interrupted by an occasional exacerbation, especially of the oppressive breathing.

The patient seemed much exhausted and kept her bed for several days, during which her skin, usually soft and delicate, remained rough and furfuraceous.

This was the fourth time, as I observed in the commencement, that I had witnessed a similar effect produced on this young woman from the administration of quinine.

In the first instance the dose being very small (about two grains), the symptoms, although of the same character, were not so violent, and lasted only about an hour. Being quite unprepared for such a result, I asked myself whether the quinine could be the cause, and as she was quite well the next day, another pill containing the same amount was given, with precisely the same result.

As the patient charged her symptoms to the drug administered, she was unwilling to again resort to its use; to test how much might be due to imagination, I had it administered without her knowledge; the effects were soon obvious. Three times the amount taken was only two grains, and on the fourth and last occasion only five grains. It is obvious that the effects produced by the quinine were in proportion to the amount prescribed, as in the last instance they were truly alarming and distressing, although, in this case, a portion of the medicine had been ejected by vomiting.

What would the result have been had a much larger dose been administered? It is probable, however, that the dose here is only of secondary importance, and that the effects are due to the peculiar idiosyncrasy of the individual almost exclusively. Seven or eight years ago this idiosyncrasy did not exist at all. In a severe attack of fever which she experienced at that period, eight grammes of the sulphate of quinine were given in divided doses without producing anything but the ordinary effects of the drug.

The accession of the phenomena above described has always been the same, appearing first on the face, lips and eyes; countenance bloated, eyelids swollen, and eyes suffused; following in rapid succession is the intolerable itching of the surface, eruption, and general feeling of tension; the mucous membrane soon participating in the disturbance, producing rapid and oppressed breathing—a real attack of asthma. A little later a discharge takes place from the nostrils, abundant tears flow from the eyes, the breathing improves, the nervous agitation is less violent, and the patient, exhausted and weak, gradually regains her usual health.

On the Use of Ergot in the Treatment of Surpura. BUCKLEY. (*The Practitioner*, Nov., 1876.)

Purpura can be successfully treated by using fluid extract of ergot hypodermically, or in the ordinary way. Dr. B. mentions several cases cured by injecting ten drops of the fluid extract of ergot daily for four days; no longer time being necessary. If ergot is given to purpuric patients by the stomach, the same results are obtained, save in the matter of time, which is considerably longer. The author discourages the old method of treatment with turpentine, maintaining that it is unreliable, and with him it very often fails. W. F. L.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS. SOCIETIES.
Mondays, May 7 and 21.—Chicago Medical Society. Regular meetings.
Mondays, May 14 and 28.—Chicago Soc. of Phys. and Surgeons. Regular meetings.
CLINICS. *Every Monday.*
At Eye and Ear Infirmary, 2 P. M.—Prof. Holmes.
At Central Dispensary (Wood and Harrison sts).—2 P. M. *Gynecological*, Dr. Adolphus; 3 P. M. *Diseases of Children* Dr. R. S. Hall.
At Mercy Hospital—2½ P. M., *Surgical*, Prof. Andrews.
At Rush College—2¼ P. M., *Medical*, Dr. Bridge.
LECTURES. *Every Monday.*
At Rush College (Harrison and Wood sts.)—9 to 1 o'clock, Drs. Wadsworth, Jackson, Danforth and Knox. At Chicago College—8 to 11, Profs. Hatfield, Jewell, and Curtis; 3½, Quine.
At Woman's College—3 to 5, Profs. Paoli and Byford.

TUESDAYS. SOCIETIES.
Tuesday, May 8.—Academy of Sciences. Regular meeting at 8 P. M. (263 Wabash av.)
CLINICS. *Every Tuesday.*
At Eye and Ear Infirmary—2 P. M., Prof. Jones.
At County Hospital—2 P. M., *Medical*, Prof. Lyman. At 3 P. M., *Surgical*, Prof. Bogue.
At Mercy Hospital, 2 P. M., *Medical*, Prof. Hollister.
LECTURES. *Every Tuesday.*
At Rush College—9 to 1, Drs. Owens, Bridge, Strong and Case. At Chicago College—9 to 11, Profs. Jewell and Byford.
At Woman's College—9 to 11, Profs. Hayes and Earle.

WEDNESDAY. CLINICS. *Every Wednesday.*
At County Hospital—2 P. M., *Ophthalmological*, Dr. Montgomery; 3 P. M., *Gynecological*, Prof. Fitch.
At Mercy Hospital—2½ P. M., *Ophthalmological*, Prof. Jones.
At Central Dispensary—2 P. M., *Surgery*, Dr. Loomis; *Diseases of Chest*, Dr. Ingals; 3, *Gynecological*, Prof. Etheridge.
LECTURES. *Every Wednesday.*
At Rush College—9 to 1, Drs. Wadsworth, Ingals and Sawyer. At Chicago College—9 to 11, Profs. Hyde and Steele; 3½, Jones.
At Woman's College—9 to 11, Prof. Marguerat and Dr. Hale.

THURSDAYS. CLINICS *Every Thursday.*
At Eye and Ear Infirmary—2 P. M., Prof. Hotz.
At Mercy Hospital—2½ P. M., *Medical*, Prof. Davis.
At Rush College—2 P. M., *Medical*, Prof. Ross; 3 P. M., *Diseases of the Nervous System*, Prof. Lyman.
At Central Dispensary—2 P. M., *Surgical*, Dr. Graham.
LECTURES. *Every Thursday.*
At Rush College—9 to 1. Drs. Hayes, Bridge, Strong and Case. At Chicago College—9 to 11, Prof. Quine and Steele; 3½, Byford and Roler.
At Woman's College—9 to 11, Profs. Thompson and Graham.

FRIDAYS. SOCIETIES.
Friday, May 11.—State Microscopical Society of Illinois. Regular meeting, 8 P. M.
CLINICS. *Every Friday.*
At County Hospital—2 P. M., *Medical*, Prof. Lyman; 3 P. M., *Surgical*, Prof. Bogue.
At Mercy Hospital—2½ P. M., *Medical*, Prof. Nelson.
At Central Dispensary—2 P. M., *Diseases of Chest*, Dr. Harroun; 3 P. M., *Dermatological*, Dr. Maynard.
LECTURES. *Every Friday.*
At Rush College—9 to 1, Drs. Wadsworth, Jackson, Strong and Knox. At Chicago College—8 to 11, Profs. Jones, Hyde, and Curtis; 3½, Hatfield.
At Woman's College—9 to 11, Profs. Bartlett and Blake.

SATURDAYS. CLINICS. *Every Saturday.*
At Chicago College—1½ P. M., *Surgical*, Prof. Andrews or Isham; *Gynecological*, Prof. Nelson; 2½ P. M., *Medical*, Prof. Johnson.
At Rush College—2 P. M., *Surgicl*, Prof. Gunn.
LECTURES. *Every Saturday.*
At Rush College—9 to 1, Drs. Owens, Bridge, Sawyer and Danforth. At Chicago College—8 to 11, Profs. Merriman, Quine and Byford; 3½, Hyde.
At Woman's College—9 to 11, Dr. Engert.

At all the above named Clinics visiting regular practitioners are, we believe, admitted.

At the South Side Dispensary (Chicago College) there are six daily special Clinics, for sections of the classes of the Chicago College.